ORDER NO. EMID0004007C0

A5

Service Manual

Digital Piano

SX-PX554 / SX-PX554M

(P) U.S.A.

(PC) Canada

(PY) Mexico

(EX) Norway, Sweden, Denmark, Finland, Spain, Portugal, Greece, South Africa

(EZ) Germany

(EG) Switzerland, Italy, Austria, Holland, Belgium, France

(EB) the United Kingdom

(GN) Australia, New Zealand

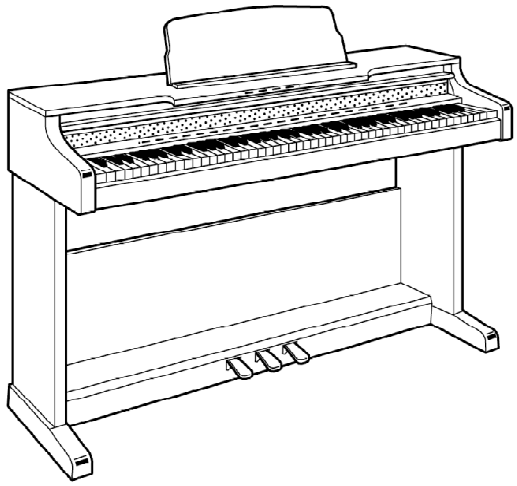
(XS) Malaysia, Singapore

(XT) Taiwan

(X) Thailand, Columbia, Panama, Philippines

(XA) Argentina

(XD) Hong, Kong



SPECIFICATIONS

SPECIFICATIONS

KEYBOARD	88 KEYS
MAX. POLYPHONY	64 NOTES
SOUND	18 SOUNDS: CONCERT GRAND, POP GRAND, UPRIGHT, E PIANO 1, E PIANO 2, HARPSI, VIBES, STRINGS, VOCAL, ORGAN PRESETS
PEDAL	SOFT, SOSTENUTO, SUSTAIN
BRILLIANCE	MELLOW, BRIGHT (5 STEPS)
DIGITAL EFFECT	Supported
DIGITAL REVERB	Supported (ROOM, STAGE, HALL, CONCERT)
TOUCH SENSITIVITY	LIGHT, NORMAL, HEAVY
TRANSPOSE	G - C - F#
TUNING	427.3Hz-440.0Hz-453.0Hz
METRONOME	Supported (TIME SIGNATURE: OFF, 2/4, 3/4, 4/4, 5/4, 6/8)
SEQUENCER	TRACK (1, 2), STORAGE CAPACITY: APPROX. 4500 NOTES, RECORDING MODE: REAL TIME
DISPLAY	Supported
DEMO	Supported
MIDI	MILTI TIMBRE, LOCAL CONTROL, OMNI ON, PROGRAM CHANGE, PEDAL, EFFECT, TRANSPOSE
MODE SET	PIANO TUNING, MINIMUM RANGE
OTHERS	POWER SWITCH, MAIN VOLME, MIDI TERMINALS (IN, OUT), PEDAL IN, AUX IN (R/R+L,L), LINE OUT (R/R+L,L), COMPUTER, HEADPHONES × 2, AC IN, INITIAL KEY
OUTPUT	120 W (60 W × 2)
SPEAKERS	14 cm × 2, 6.5 cm × 2
POWER REQUIREMENT	160 W
	AC 120V/220/230-240 V 50/60Hz / AC 120V 60Hz (NORTH AMERICA AND MEXICO) / AC230-240 V 50/60Hz (EUROPE, AUSTRALIA AND NEWZEALAND)
DIMENSIONS (W×H×D)	138.7 cm × 106.4 cm × 52 cm (54 -19/32” x 41-7/8” x 20-15/32”)
NET WEIGHT	56 kg (123.5 lbs.)
ACCESSORIES	AC CORD

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

1. WARNING

To prevent the risk of fire, smoke, or electrical shock and to ensure safe operation, please be sure to follow the safety guidelines below.

1. **At places where special caution is required, the necessary safety precautions are clearly labeled or printed, for example, on the cabinet, or on the part concerned. Please follow these safety precautions, and also those listed in the Owner's Manual.**
2. **Parts which have a ⚠ mark in the circuit diagram or in the parts list are essential for safety. When replacing these parts, be sure to use only the specified parts.**
3. **Use the specified types for internal wiring (double-insulated wiring, etc.).**
4. **When replacing parts on the AC primary side (power transformer, electric switch, electrical cord, noise-prevention condenser, etc.), wind the lead wire and secure it by soldering.**
5. **Do not let the wiring come into contact with heat-emitting devices (fuse resistor, radiator plate, etc.).**
6. **When replacing the wiring, make sure that it is not in contact with the unfinished or rough edge of a part.**
7. **When replacing the power cord (except for the plug-in type), tug it from various directions to confirm that it does not slip out of place.**
8. **Spacing**
   If soldering was done on the AC primary circuit, confirm that the interval between the soldered terminals or between the terminal and surrounding metallic parts is at least the minimum required (between the primary circuit and the chassis: at least 6.5 mm; between primary circuit terminals: at least 4.0 mm; between primary circuit terminals and secondary circuit terminals: at least

6.5 mm.).

2. SAFETY PRECAUTION

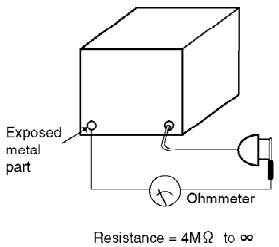
2.1. Safety precaution

1. **Before servicing, unplug the power cord to prevent an electric shock.**
2. **When replacing parts, use only the manufacturer's recommended components for safety.**
3. **Check the condition of the power cord. Replace if wear or damage is evident.**
4. **After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.**
5. **Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.**

2.2. Insulation resistance test

1. **Unplug the power cord and short the prongs of the plug with a jumper wire.**
2. **Turn on the power switch.**
3. **Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screw heads, connectors, control shafts, handle brackets, etc. Measurements should range from 4 M Ohm to infinity for all exposed parts.**

Figure-1



3. OWNERS MANUAL

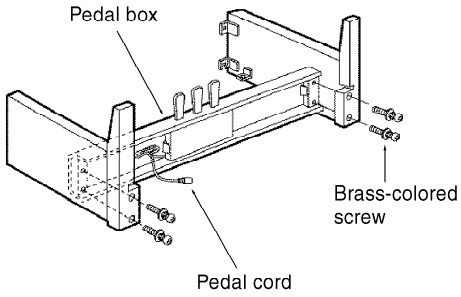
4. HOW TO ASSEMBLE THE PIANO

To prevent the piano unit from falling off the stand, secure it firmly with the screws.

1. Assemble the right and left planks

- Assemble the right and left planks to the pedal box with the 4 brass -colored screws.
- Loosen the pedal cord, stowed on the inner side of the pedal box, and extend it.

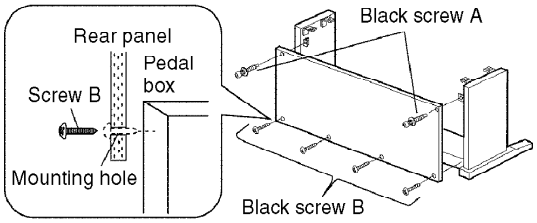
Figure-2



2. Place the stand uplight and mount the panel

- Place the stand upright and mount the rear panel with 2 black screws A and 4 black screws B.
- Run the screws directly into the pedal box as there are no rough holes in the pedal box.

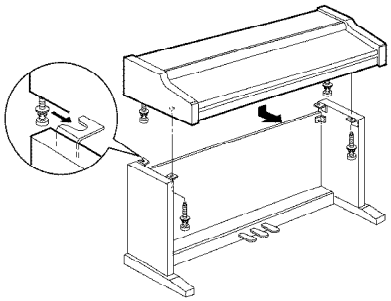
Figure-3



3. Place the piano body

- Place the piano body on the stand and secure it with 4 black screws A.

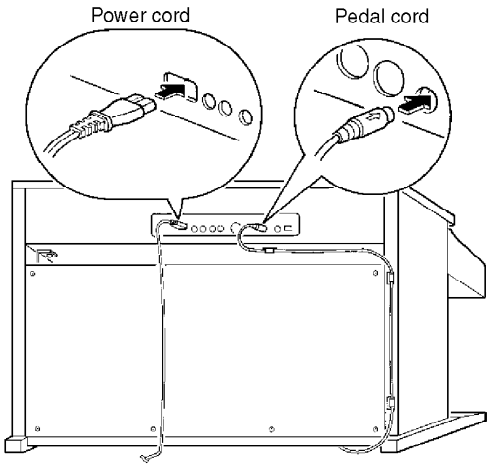
Figure-4



4. Connect the pedal cord and power cord

- Connect the pedal cord and power cord to the terminals located on the rear of the piano unit as shown below.
- Secure the pedal cord to the clamps as shown in the figure.

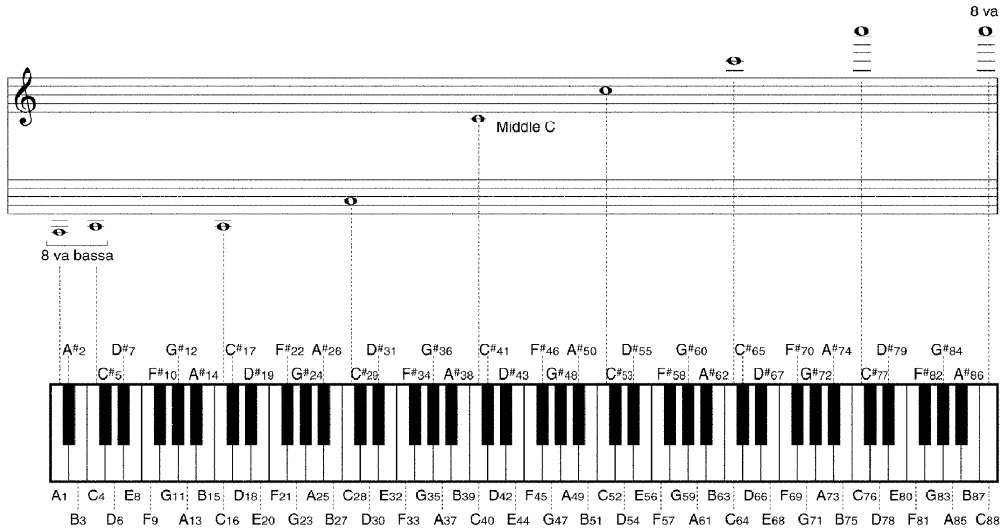
Figure-5



5. KEYBOARD RANGES

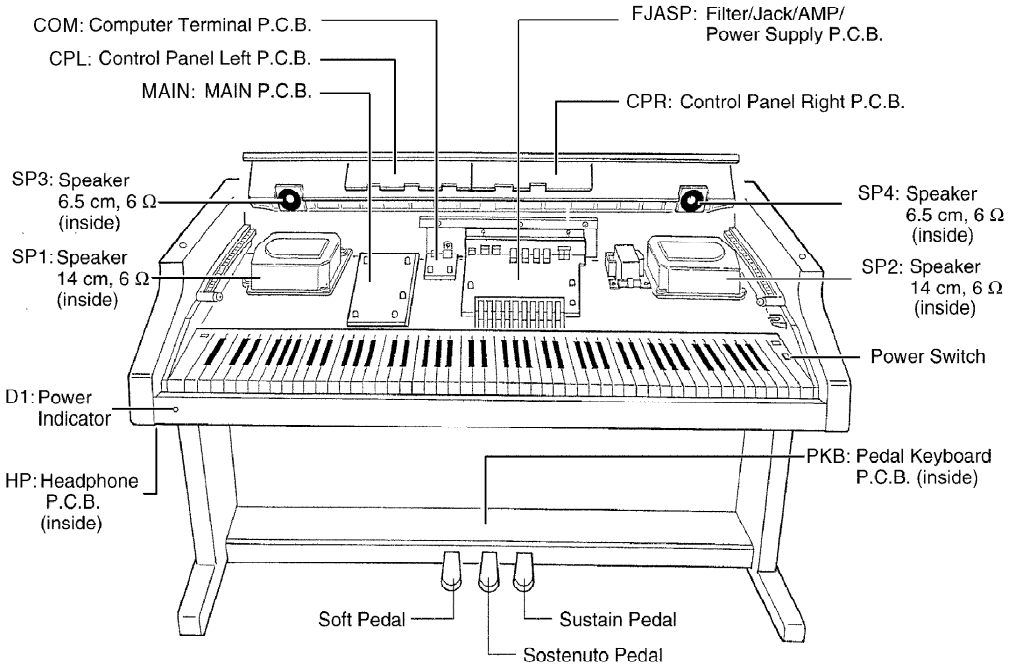
This keyboard features Touch Response, by which you control the volume by playing the keys harder or softer.

Figure-6



6. PARTS LOCATION

Figure-7


COM: Computer Terminal P.C.B.
CPL: Control Panel Left P.C.B.
MAIN: MAIN P.C.B.
FJASP: Filter/Jack/AMP/ Power Supply P.C.B.
CPR: Control Panel Right P.C.B.
SP3: Speaker 6.5 cm, 6 Ω (inside)
SP1: Speaker 14 cm, 6 Ω (inside)
SP4: Speaker 6.5 cm, 6 Ω (inside)
SP2: Speaker 14 cm, 6 Ω (inside)
Power Switch
D1: Power Indicator
PKB: Pedal Keyboard P.C.B. (inside)
HP: Headphone P.C.B. (inside)
Soft Pedal
Sustain Pedal
Sostenuto Pedal

7. DISASSEMBLY INSTRUCTIONS

7.1. Removing the top cover

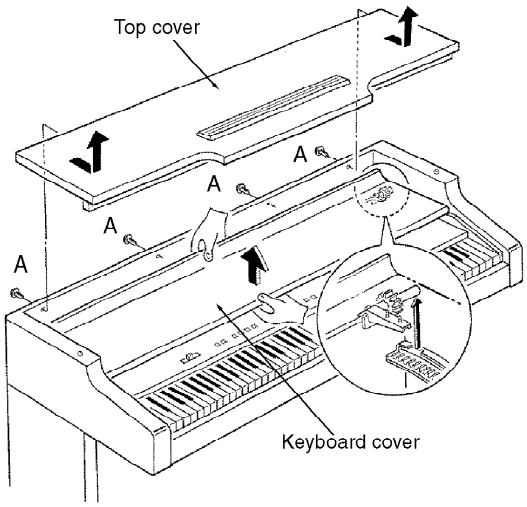
1. Remove the top cover mounting screws (A 4 pcs.) as shown in Figure-8.

2. Slide the top cover forward and lift up (as shown by the arrows).

7.2. Removing the keyboard cover

1. Remove the top cover (see step "Removing the top cover").
2. Match the gears of the keyboard cover with the notches in the guide rail, and lift up the keyboard cover as shown in Figure-8.

Figure-8

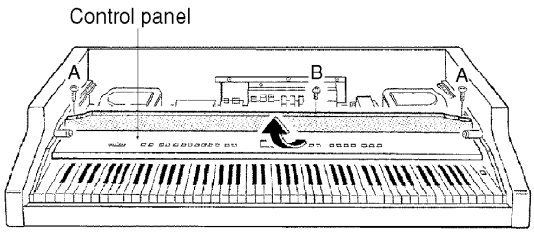


7.3. Removing the control panel

- Pull out the connectors on the control panel.

1. Remove the keyboard cover (see step "Removing the keyboard cover").
2. Remove the control panel mounting screws (A 2 pcs. and B 1 pc.) as shown in Figure-9.
3. Slide the control panel forward and pull out (as shown by the arrow).

Figure-9

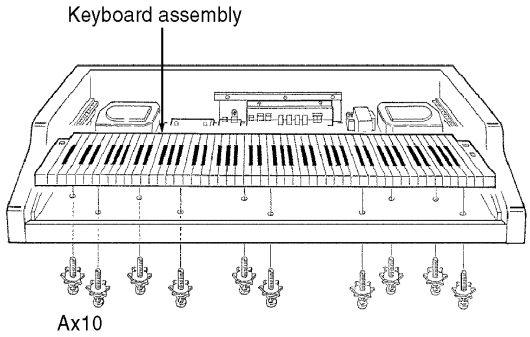


7.4. Removing the keyboard assembly

1. Remove the control panel (see step "Removing the control panel").

2. Remove the keyboard assembly mounting screws located on the bottom of the cabinet (A 10 pcs.) as shown in Figure-10.

Figure-10



7.5. Key(s)

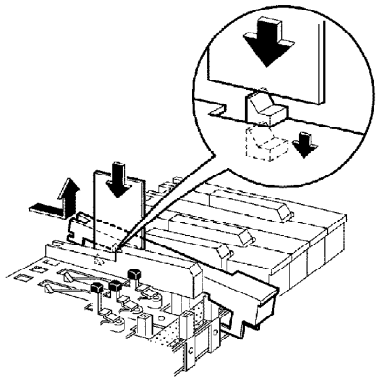
Disassembly

1. Remove the keyboard assembly (see step "Removing the keyboard assembly").
2. While inserting a thin plate to press down a claw, push the rear of the key forward to disengage the key claw from the chassis.
3. Lift the key up to remove it.

Note:

- The key claw is easily broken. Do not apply undue force. Should a key claw break, it can still be used.
- If a black key is to be replaced, it is necessary to remove both adjacent white keys.

Figure-11

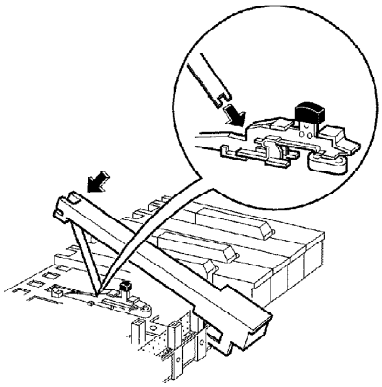


/ / / /

Assembly

1. Insert the front part of the key into the chassis.
2. Insert the plate spring into the hammer notch as shown in Figure - 12.
3. While slowly lowering the key into the chassis, insert the plate spring into the notch at the rear of the key.
4. Carefully insert the key into the opening in the chassis and slide the key towards the rear to lock it in place.

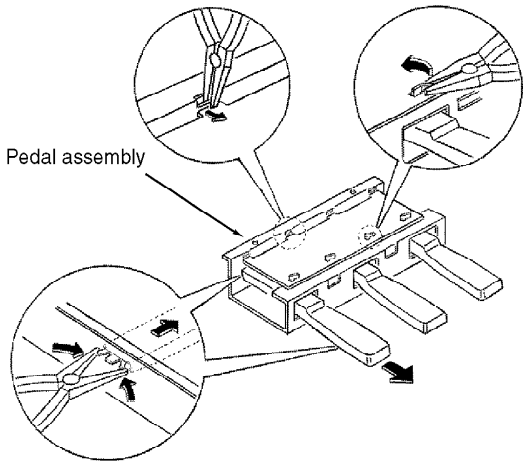
Figure -12



7.6. Disassembly of the pedal assembly

1. Remove the pedal assembly from the pedal box.
2. Disassemble the pedal assembly as shown in Figure-13.

Figure-13



7.7. Removing the speakers

Remove the top cover (see step "Removing the top cover").

Speaker box

- Remove the speaker box mounting screws (A 4 pcs. each).

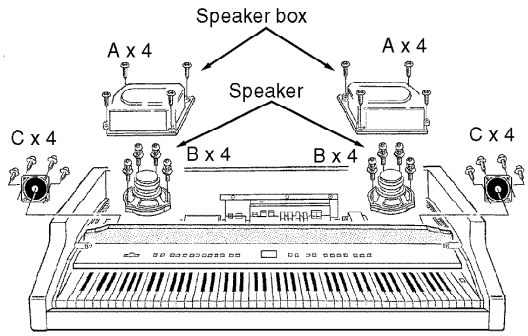
Speakers (14 cm)

- Remove the speakers mounting screws (B 4 pcs. each).

Speakers (6.5 cm)

- Remove the speakers mounting screws (C 4 pcs. each).

Figure-14



7.8. Removing the printed circuit boards

- Remove the top cover (see step "Removing the top cover").

- Pull out the connectors on the printed circuit boards.

MAIN P.C.B.

1. Remove the ground wire holding screws (A 1pc.).

2. RElease the claws of the 5 P.C.B. holders.

FJASP P.C.B.

1. Remove the FJASP P.C.B. mounting screws (B 2 pcs. and C 2 pcs.).

2. Release the claws of the 3 P.C.B. holders.

COM P.C.B.

1. Remove the COM P.C.B. mounting screws (D 1 pc.).

2. Release the claws of the 2 P.C.B. holders.

HP P.C.B.

1. Remove the keyboard assembly (see step "Removing the keyboard assembly").

2. Remove the headphone jack mounting nuts (E 2 pcs.).

3. Remove the ground wire holding screw (F 1 pc.).

4. Remove the HP P.C.B. mounting screws (G 2 pcs.)

CPL P.C.B

1. Remove the control panel (see step "Removing the control panel

”).

2. Pull the MAIN VOLUME knob.
3. Remove the CPL P.C.B. mounting screws (H 10 pcs., I 3pcs., J 1 pc., and K 1 pc.).

CPR P.C.B.

1. Remove the control panel (see step “Removing the control panel ”).
2. Remove the CPR P.C.B. mounting screws (M 10 pcs., L 3pcs., J 1 pc., and K 1 pc.).

Figure-15

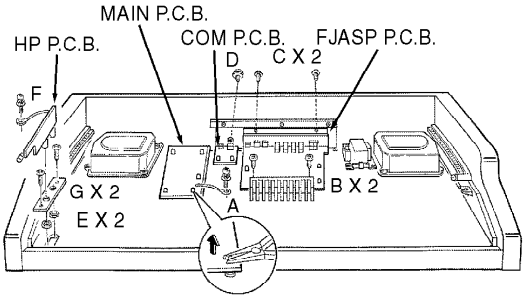
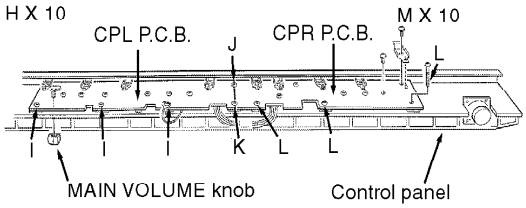
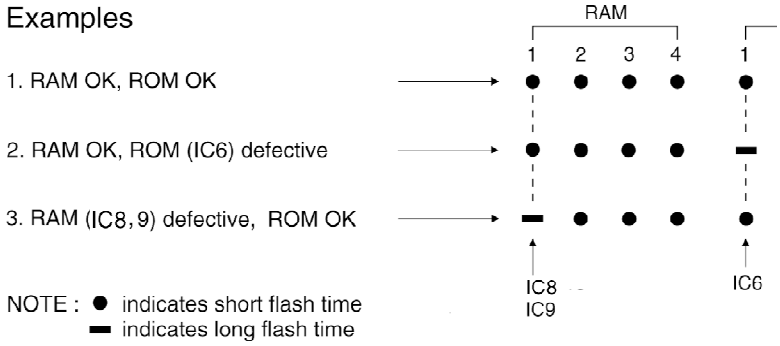
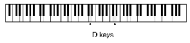
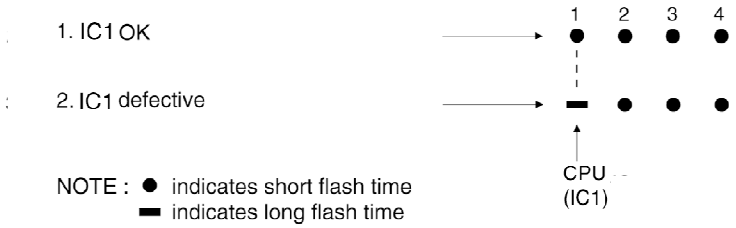


Figure-16

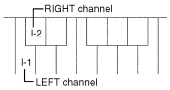


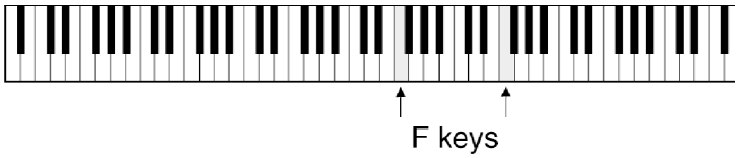
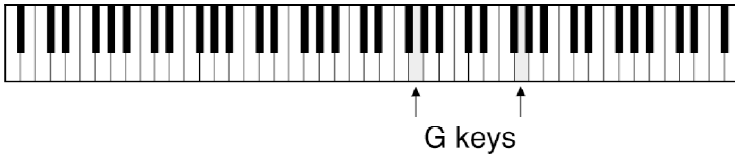
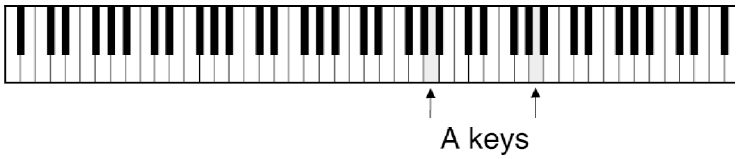
8. SELF-DIAGNOSTIC FUNCTIONS

This model has some self-diagnostic capabilities. When set to the self-diagnostic mode, operation of various components can be verified by following the procedures in the chart below.

PCB	TEST MODE	Procedure
MAIN	RAM (IC8,9), ROM (IC6) check	1. Connect the CHECKING DEVICE to CN9 on the MAIN P.C.B., and turn on the CHECKING D 2. Turn on the power switch. 
CPL	CPU (IC1) check	1. Connect the CHECKING DEVICE to CN9 on the MAIN P.C.B. (the Checking Device switch 2. Press and hold the two D keys shown below, and then turn on the power switch.  When the power switch is turned on, the LED of the CHECKING D flashes 8 times. The first 4 flashes are for the RAM check, and the flashes are for the ROM check. The order of the LED flashes corr the respective IC numbers as shown below. If an IC is defective, t corresponding flash time is longer. 

■ **Connection between serving CHECKING DEVICE and MAIN P.C.B.**

PCB	TEST MODE	Procedure
MAIN	Wave ROM check MAIN: IC12, IC18	1. Press and hold the two E keys shown below, and then turn on the power switch. 2. Select the POP GROUND sound. 3. Reduce the MAIN VOLUME level low enough. When set to the self-diagnostic mode, the Wave ROM outputs a s The Wave ROMs correspond to the keyboard keys as shown in th to the right. When a key is pressed, the corresponding sine wave produced. If no sound is produced, or if the sound is distorted, th ROM corresponding to that key is defective. This method allows t diagnose also the output routes (L/R) from the Wave ROM. -The key number indicates the Wave ROM number. (I-1: IC12, I-2: IC18) 

PCB	TEST MODE	Procedure
CPL CPR	Control Panel buttons LED lighting check	Press and hold the two F keys shown below, and then turn on the switch.  Press the buttons on the control and confirm that the correspond light.
	Control Panel LED display check	Press and hold the two G keys shown below, and then turn on th switch.  The numbers are displayed automatically and repeatedly on the d
MKB	Keyboard ROM (IC1) check	Press and hold the two A keys shown below, and then turn on th switch.  If the keyboard ROM (IC1) is OK, only the TOUCH SENSITIVITY LI flashes. If it is defective, the LEDs (LIGHT and NORMAL, or LIGH NORMAL and HEAVY) flash.

9. PRECAUTIONS BEFORE SERVICING

9.1. Precautions for measuring of the output waveforms

1. The waveform was measured with a “National Digital Storage Oscilloscope VP-5730A”. Therefore the waveforms of musical tone signals shown may differ somewhat due to the difference in the timing of triggering.
2. Since the 1/10 test probe is used, the indicated voltage value on the bottom part of each waveform illustration is 1/10 of the actual value (e.g. 0.2 V/cm should be 2.0 V/cm).
3. To measure the waveforms, first set this unit to the service diagnostic mode (refer to “Wave ROM check on SELF-DIAGNOSTIC FUNCTIONS”). The WAVE ROM output will then be

output as a sine wave to facilitate the servicing check.

9.2. Important safety notice

- Components identified by a ⚠ mark have special characteristics important for safety.
- When replacing any of these components, use only manufacture's specified parts.

9.3. Symbolic marks

The symbolic marks for resistors and capacitors which used in this circuits are classified as following Table-1 and Table-2.

9.3.1. Resistors

- Resistors without symbolic mark are FIXED CARBON FILM RESISTORS (ERD-type).
- All resistors are 1/4 WATT, ±5 % TOLERANCE unless otherwise designated in schematic diagrams.

Table-1

SYMBOL	SPECIFICATION
F	Fixed Carbon Film Resistors "FLAME-PROOF" (ERD—F—type)
F	Fixed Wire Wound Resistors "FLAME-PROOF" (ERF—type)
F	Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERG—type)
F	Fixed Metal Film Resistors "FLAME-PROOF" (ERX—type)
G	Fixed Metal Film Resistors (Precision and High Stability) (ERO—type)
F	Fuse Type Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERQ—type)
F	Fuse Type Fixed Carbon Film Resistors "FLAME-PROOF" (ERD2FC—type)

9.3.2. Capacitors

- Capacitors without symbolic mark are POLYESTER CAPACITORS. (ECQM-type, ECQG-type, ±10% Tolerance)
- Polarized capacitors without symbolic mark are Aluminum Electrolytic Capacitors. (ECEA-type, ±20% Tolerance)

Table-2

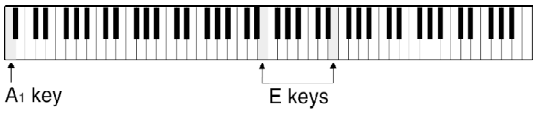
SYMBOL	SPECIFICATION	TYPE
(N)	Non-Polarized Electrolytic Capacitors	ECEA_KN_type
(Y)	Non-Polarized Electrolytic (for Network system)	ECEA_Y_type
(T)	Tantalum Solid Electrolytic Capacitors	ECS_type
(TF)	Metallized Plastic Film Capacitors (TF Series)	ECQV_type
◯	Temperature Compensating Ceramic Capacitors	ECC_type
	High-Dielecytric Constant Ceramic Capacitors	ECK_type, ECR_type
	Axial Lead Ceramic Capacitors	ECB_type
	Metallized Polyester Film Capacitors for Across the Line	ECQ_EW_type
	Aluminum Electrolytic Capacitors for Smoothing Circuit	ECES_type
	Multilayer Ceramic Chip Capacitors	ECUV_type

10. MEASURING CONDITION

10.1. Measuring condition of MAIN P.C.B.

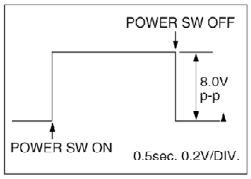
Check Point 2 - 9
Set to the Self-diagnostic Mode followings.

- **While pressing two E keys simultaneously, turn on the power switch.**
- **SOUND: CONCERT GRAND**
- **MAIN VOLUME: Max.**
- **Keyboard: A_1**



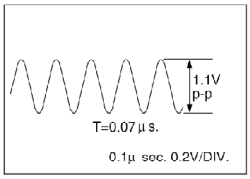
Check Point 1
Set to the Initial mode (refer to "OWNERS MANUAL").

❶ $\overline{\text{RESET}}$

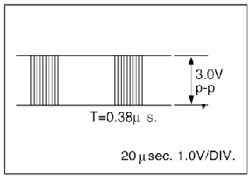


▪ Power SW ..... ON → OFF

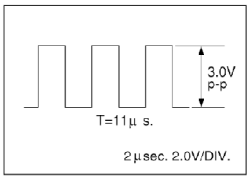
❷, ❸ TG CLOCK



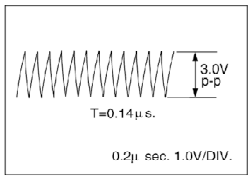
❹, ❺



❻, ❼



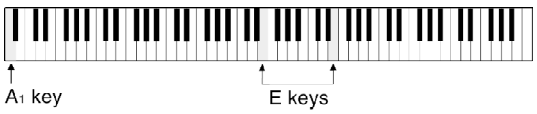
❽, ❾



10.2. Measuring condition of FAJSP P.C.B.

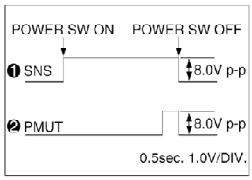
Check Point 3 - 8
Set to the Self-diagnostic Mode followings.

- **While pressing two E keys simultaneously, turn on the power switch.**
- **SOUND: CONCERT GRAND**
- **MAIN VOLUME: Max.**
- **Keyboard: A_1**



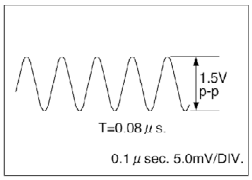
Check Point 1,2
Set to the Initial mode (refer to "OWNERS MANUAL").

❶ SNS, ❷ PMUT

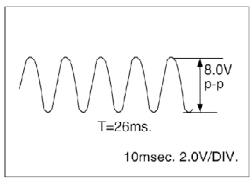


• Power SW ..... ON → OFF

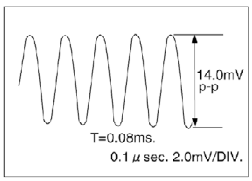
❸ SUML , ❹ SUMR



❺ HPL, ❻ HPR



❼ SPL, ❽ SPR



11. SCHEMATIC DIAGRAM

12. PRINTED CIRCUIT BOARD

12.1. MAIN, FAJSP, CPL P.C.B.

12.2. CPR, MKB1, MKB2, PKB, COM, HP P.C.B.

13. BLOCK DIAGRAM

14. WIRING CONNECTION DIAGRAM

15. REPLACEMENT PARTS LIST

Notes:
***Important safety notice:**
Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.
***Warning: This product uses a laser diode. Refer to caution statements.**
***ACHTUNG: Die lasereinheit nicht zerlegen. Die lasereinheit darf nur gegen einc vom hersteller spezifizierte einheit ausgetauscht werden.**
***Capacity values are in microfarads (uF) unless specified otherwise. P=Pico-farads (pF), F= farads (F)**
***Resistance values are in ohms, unless specified otherwise. 1K=1,000 (OHM), 1M=1,000K (OHM)**
***The marking <RTL> indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.**
***"<IA>"-"<IH>" marks in Remarks indicate languages of instruction manuals. [<IA>: Dansk, <IB>: English, <IC>: English, <ID>: French, <IE>: Germany, <IF>: Italiano, <IG> : Espanol, <IH>: Nederlands]**

***MAIN, FAJSP, CPL, CPR, MKB1, MKB2, COM and HP in Remarks indicate the Circuits and P. C. B.s. If the same Ref. No. is found in the replacement parts list, check those indications in the Remarks.**

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	QAQG032AAK	SOUND LOOPHOLE BOARD	1	
2	QGPG0136BA	CONTROL PANEL	1	
3	SBNG7050A	KNOB	1	
4	QMFG1107AA	FELT(RED)	1	
5	QGPG0106AA	LED PANEL	1	
6	QMRG5229AA	CUSHION	1	
7	QMRG5230AA	CUSHION	1	
8	QGPG0123DA	BUTTON	1	
9	QGPG0124AB	BUTTON	1	
10	QMCG004AA	SPACER	9	
11	QKSGG030AAK	GUIDE	1	
12	QKSGG031AAK	GUIDE	1	
13	SJS9231A	AC INLET COVER	1	⚠ EXCEPT P, PC, PY
13	SJS9334A	AC INLET COVER	1	⚠ P, PC ,PY ONLY
14	QMRG5155AAK	CUSHION	4	
15	QMRG5206AA	CUSHION	1	
16	SHRG1230A	CORD CLAMPER	1	
17	QLZG021A	CORE	3	
18	QMRG7086AA	LID,GUIDE	2	
19	QYKG261AAZ	CABINET ASS'Y	1	
19	QYKG261ABZ	CABINET ASS'Y	1	SX-PX554M
20	QMFG1083AB	FELT	1	
21	SBLG7-2	STAY	1	
22	QKQGN926AAZ	MUSIC STAND	1	
22	QKQGN926ABZ	MUSIC STAND	1	SX-PX554M
23	SBHG5003-2	HINGE	2	
24	QKQGA142ACZ	TOP COVER ASS'Y	1	
24	QKQGA142ADZ	TOP COVER ASS'Y	1	SX-PX554M
24-1	QMFG1274AA	FELT	1	
24-2	SGBG160B	BADGE	1	
25	QKQGF037BAZ	KEYBOARD COVER ASS'Y	1	
25	QKQGF037BEZ	KEYBOARD COVER ASS'Y	1	SX-PX554M
25-1	QMRG7098AA	HOLDER	2	
25-2	QWBG002AA	HOLDER	1	
25-3	QXQG007AA	AXLETREE	1	
25-4	QGKG0154AA	ORNAMENT	1	
25-4	QGKG0154AB	ORNAMENT	1	SX-PX554M
25-5	QMRG7031EC	PROTECTOR	1	
25-6	QMRG7032EC	PROTECTOR	1	
25-7	QMFG1277AA	FELT	2	
25-8	QGKG0095AD	ORNAMENT	1	
26	QKQGN998AAZ	CROSS BOARD	1	
26	QKQGN998ABZ	CROSS BOARD	1	SX-PX554M
27	SHRG9620A	CORD CLAMPER	3	
28	QKQGM107AAZ	PANEL BOX ASS'Y	1	
28	QKQGM105ABZ	PEDAL BOX ASS'Y	1	SX-PX554M
28-1	QGKG0113AA	ORNAMENT	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
29	QKQGN995AAZK	LEFT PLANK	1	
29	QKQGN995ABZK	LEFT PLANK	1	SX-PX554M
30	QKQGN996AAZK	RIGHT PLANK	1	
30	QKQGN996ABZK	RIGHT PLANK	1	SX-PX554M
31	QAQG033AAK	LEFT LEG ASS'Y	1	
31	QAQG033ABK	LEFT LEG ASS'Y	1	SX-PX554M
31-1	SHRG2130B-K	FOOT	2	
31-2	XTB4+16A	SCREW	4	
32	QAQG034AAK	RIGHT LEG ASS'Y	1	
32	QAQG034ABK	RIGHT LEG ASS'Y	1	SX-PX554M
32-1	SHRG2130B-K	FOOT	2	
32-2	XTB4+16A	SCREW	4	
33	QMWG4002AA	PEDAL ARM	3	
34	QMFG1134AA	FELT	3	
35	QMBG009AA	SPRING	3	
36	QMFG1133AA	FELT	3	
37	QKAG0011AA	FOOT	1	
38	QMFG1135AA	FELT	3	
39	SGKG980A	LABEL	1	
40	QTPG1N017A	POWER TRANSFORMER	1	⚠ EXCEPT P PC, PY
40	QTPG1N022A	POWER TRANSFORMER	1	⚠ P, PC, PY ONLY
41	QGUG1040AA	BUTTON,POWER SW	1	
42	QGPG0139AB	END COVER PANEL,LEFT	1	
43	QGPG0138AB	END COVER PANEL,RIGHT	1	
44	QMFG1104AA	FELT	1	
45	QMWG1041AA	WHITE KEY(FIRST OCTAVE A	1	
46	QMWG1042AA	WHITE KEY(B KEY)	8	
47	QMWG1043AA	WHITE KEY(C KEY)	7	
48	QMWG1044AA	WHITE KEY(D KEY)	7	
49	QMWG1045AA	WHITE KEY(E KEY)	7	
50	QMWG1046AA	WHITE KEY(F KEY)	7	
51	QMWG1047AA	WHITE KEY(G KEY)	7	
52	QMWG1048AA	WHITE KEY(A KEY)	7	
53	QMWG1049AA	WHITE KEY(TOP OCTAVE C KE	1	
54	QMWG2006AA	BLACK KEY	36	
55	QMCG011BA	SPRING	88	
56	QMWG9027AA	HAMMER(BLACK KEY)	8	
57	QMWG9027AB	HAMMER(BLACK KEY)	14	
58	QMWG9027AC	HAMMER(BLACK KEY)	7	
59	QMWG9027AD	HAMMER(BLACK KEY)	7	
60	QMWG9025AA	HAMMER(WHITE KEY)	12	
61	QMWG9025AB	HAMMER(WHITE KEY)	19	
62	QMWG9025AC	HAMMER(WHITE KEY)	11	
63	QMWG9025AD	HAMMER(WHITE KEY)	10	
64	QMGG060AA	RUBBER CAP(HAMMER)	88	
65	QMWG8045AA	KEY GUIDE	88	
66	QMWG8041AA	FUL CU RUM(4 PCS,ON ONE)	1	
67	QMWG8040AA	FUL CU RUM(12 PCS,ON ONE)	7	
68	QMFG1267BA	FELT	2	
69	QMFG1268BA	FELT	2	
70	QMFG1266BA	FELT	4	
71	QMFG1265AA	FELT	2	
72	QMWG6021AA	RUBBER SWITCH(4 PCS,ON ON	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
73	QMWG6020AA	RUBBER SWITCH(12 PCS,ON O	7	
74	XNS12FZ	NUT	2	
75	XTT4+10A	SCREW	16	
76	XTB4+12A	SCREW	4	
77	XTW3+8J	SCREW	1	
78	XTN4+16F	SCREW WITH WASHER	1	
79	XTT4+14A	SCREW	2	
80	XTB35+14A	SCREW	1	
81	XYN4+F16FZ	SCREW	3	
82	XTB35+10A	SCREW	3	
83	XTW3+10Q	SCREW	28	
84	XTV3+20JFZ	SCREW	7	
85	XTT4+12AFZ	SCREW	2	
86	XYA35+JA12	SCREW	14	
87	XYN3+C8FZ	SCREW	1	
88	XTV3+10JFZ	SCREW	3	
89	XTWSG2	SCREW	8	
90	XYN4+F16	SCREW	4	
91	XTT4+20A	SCREW	8	
92	QHDG021AA	SCREW	10	
93	QHWG007AA	NUT	2	
94	QHDG055AA	SCREW	12	
95	XTT4+25A	SCREW	6	
96	GTT4+25AFZ	SCREW	4	
97	XTB3+10AFZ	SCREW	3	
98	XTB35+16A	SCREW	10	
99	XTN4+50AFZ	SCREW	2	
100	QHDG032AB	SCREW WITH WASHER	4	
101	QHDG016AB	SCREW WITH WASHER	6	
102	XTS3+12AFZ	SCREW	6	
103	XTS3+10AFZ	SCREW	4	
104	XTT5+20AFZ	SCREW	4	
105	XTV3+20JFZ	SCREW	2	
106	XTV3+12G	SCREW	4	
107	XTW3+10T	SCREW	16	
108	QMWG8038AA	HAMMER SUPPORT(WHITE KEY)	52	
109	QMWG8039AA	HAMMER SUPPORT(BLOCK KEY)	36	
A1	QQFGPX552AA	FANBAG	1	P
A1	QQFGPX552CA	FANBAG	1	EX X PY XA
A1	QQFGPX552DA	FANBAG	1	PC
A1	QQFGPX552EA	FANBAG	1	EB,GN
A1	QQFGPX552FA	FANBAG	1	EZ
A1	QQFGPX552GA	FANBAG	1	EG
A2	QJAG025AA	AC CORD	1	⚠ P,PC,PY
A2	QJAG027AA	AC CORD	1	⚠ EZ EG EX X
A2	QJAG028AA	AC CORD	1	⚠ EB
A2	QJAG029AA	AC CORD	1	⚠ GN
A2	QJAG031AA	AC CORD	1	⚠ XA
A3	SJP5213-2	ATTACHMENT PULG	1	⚠ X
C1	ECEA0JKS101B	100UF,6.3V	1	CPL
C1	ECKCVA1472MF	4700PF	1	⚠ FJASP

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1	ECRR1H104ZF	0.1UF	1	PKB
C1	ECKF1E473ZV	0.047UF	1	HP
C1	ECRF1H104ZF	0.1UF	1	MKB1
C1	ECUV1C224KBX	0.22UF	1	MAIN
C2	ECKF1E473ZV	0.047UF	1	HP
C2	ECQU2A104MN	0.1UF,250V	1	⚠ FJASP
C2	ECUV1C224KBX	0.22UF	1	MAIN
C2	QCBG1H104ZFA	0.1UF	1	CPL
C3	ECBT1E223ZF5	0.022UF	1	CPL
C3	ECRF1H104ZF	0.1UF	1	HP
C3	ECRR1H104ZF1	0.1UF	1	MAIN
C4	ECA1VM472E	4700UF,35V	1	FJASP
C4	ECEA0JKA470	47UF,6.3V	1	MKB1
C4	ECEA0JKS101B	100UF,6.3V	1	CPL
C4	ECEA1HKA010B	1UF,50V	1	MAIN
C5	ECRF1H104ZF	0.1UF	1	MKB2
C6	ECRF1H104ZF	0.1UF	1	MKB1
C6	ECA1VM472E	4700UF,35V	1	FJASP
C6	ECUV1H101JG	100PF	1	MAIN
C7	ECRF1H104ZF	0.1UF	1	MKB2
C7	ECUV1H101JG	100PF	1	MAIN
C7	QCBG1H104ZFA	0.1UF	1	CPL
C8	ECCR1H104ZF1	0.1UF	1	FJASP
C8	ECUV1H104ZFX	0.1UF	1	MAIN
C9	ECCR1H104ZF1	0.1UF	1	FJASP
C9	ECUV1H104ZFX	0.1UF	1	MAIN
C10	ECEA1CKA100B	10UF,16V	1	FJASP
C10	ECUV1H104ZFX	0.1UF	1	MAIN
C10	QCBG1H104ZFA	0.1UF	1	CPL
C11	ECA1CM331B	330UF,16V	1	FJASP
C11	ECUV1H104ZFX	0.1UF	1	MAIN
C12	ECEA1HKN010B	1UF,50V	1	FJASP
C13	ECCR1H221J5	220PF	1	FJASP
C13	ECUV1H101JG	100PF	1	MAIN
C14	ECEA1HKN010B	1UF,50V	1	FJASP
C14	ECUV1H101JG	100PF	1	MAIN
C15	ECCR1H221J5	220PF	1	FJASP
C15	ECUV1H104ZFX	0.1UF	1	MAIN
C16	ECQB1H103JF3	0.01UF	1	FJASP
C16	ECUV1H104ZFX	0.1UF	1	MAIN
C17	ECQV1H474JM3	0.47UF	1	FJASP
C17	ECUV1H104ZFX	0.1UF	1	MAIN
C18	ECQG1H152KZT	0.0015UF	1	FJASP
C19	ECEA1HKN010B	1UF,50V	1	FJASP
C19	ECUV1H104ZFX	0.1UF	1	MAIN
C20	ECQB1H473JF3	0.047UF	1	FJASP
C20	ECUV1C224KBX	0.22UF	1	MAIN
C21	ECQB1H333JF3	0.033UF	1	FJASP
C22	ECQG1H472KZT	0.0047UF	1	FJASP
C23	ECQV1H683JM3	0.068UF	1	FJASP
C23	ECUV1H102JX	0.001UF	1	MAIN
C24	ECQB1H223JF3	0.022UF	1	FJASP
C24	ECUV1H101JG	100PF	1	MAIN
C25	ECQB1H153JF3	0.015UF	1	FJASP

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C25	ECUV1H101JG	100PF	1	MAIN
C26	ECQG1H682KZT	0.0068UF	1	FJASP
C26	ECUV1H104ZFX	0.1UF	1	MAIN
C27	ECQG1H332KZT	0.0033UF	1	FJASP
C27	ECUV1H104ZFX	0.1UF	1	MAIN
C28	ECEA1CKA470B	47UF,16V	1	MAIN
C28	ECQG1H222KZT	0.0022UF	1	FJASP
C29	ECQB1H103JF3	0.01UF	1	FJASP
C29	EECS5R5V105	1F,5.5V	1	MAIN
C30	ECEA1HKN010B	1UF,50V	1	FJASP
C30	ECUV1H104ZFX	0.1UF	1	MAIN
C31	ECQB1H473JF3	0.047UF	1	FJASP
C32	ECQV1H474JM3	0.47UF	1	FJASP
C33	ECQG1H152KZT	0.0015UF	1	FJASP
C34	ECQV1H683JM3	0.068UF	1	FJASP
C35	ECQB1H223JF3	0.022UF	1	FJASP
C36	ECQB1H333JF3	0.033UF	1	FJASP
C36	ECUV1H104ZFX	0.1UF	1	MAIN
C37	ECQG1H472KZT	0.0047UF	1	FJASP
C37	ECUV1H104ZFX	0.1UF	1	MAIN
C38	ECQB1H153JF3	0.015UF	1	FJASP
C38	ECUV1H104ZFX	0.1UF	1	MAIN
C39	ECQG1H682KZT	0.0068UF	1	FJASP
C39	ECUV1H104ZFX	0.1UF	1	MAIN
C40	ECQG1H332KZT	0.0033UF	1	FJASP
C40	ECUV1H104ZFX	0.1UF	1	MAIN
C41	ECQG1H222KZT	0.0022UF	1	FJASP
C41	ECUV1H104ZFX	0.1UF	1	MAIN
C42	ECCR1H100D5	10PF	1	FJASP
C42	ECUV1H104ZFX	0.1UF	1	MAIN
C43	ECCR1H100D5	10PF	1	FJASP
C43	ECUV1H104ZFX	0.1UF	1	MAIN
C44	ECQV1H154JM3	0.15UF	1	FJASP
C44	ECUV1H104ZFX	0.1UF	1	MAIN
C45	ECQB1H223JF3	0.022UF	1	FJASP
C45	ECUV1H104ZFX	0.1UF	1	MAIN
C46	ECQV1H104JM3	0.1UF	1	FJASP
C46	ECUV1H104ZFX	0.1UF	1	MAIN
C47	ECEA50Y1R5K	1.5UF,50V	1	FJASP
C47,48	ECUV1H104ZFX	0.1UF	2	MAIN
C49	ECQV1H154JM3	0.15UF	1	FJASP
C49	ECUV1H104ZFX	0.1UF	1	MAIN
C50	ECQB1H223JF3	0.022UF	1	FJASP
C50	ECUV1H104ZFX	0.1UF	1	MAIN
C51	ECQV1H104JM3	0.1UF	1	FJASP
C51	ECUV1H104ZFX	0.1UF	1	MAIN
C52	ECEA50Y1R5K	1.5UF,50V	1	FJASP
C54	ECBT1C222MR5	0.0022UF	1	FJASP
C54	ECUV1H104ZFX	0.1UF	1	MAIN
C55	ECBT1C222MR5	0.0022UF	1	FJASP
C55	ECUV1H104ZFX	0.1UF	1	MAIN
C56	ECCR1H104ZF1	0.1UF	1	FJASP
C56	ECUV1H104ZFX	0.1UF	1	MAIN
C57	ECCR1H104ZF1	0.1UF	1	FJASP

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C57	ECUV1H104ZFX	0.1UF	1	MAIN
C58	ECBT1C222MR5	0.0022UF	1	FJASP
C58	ECUV1H104ZFX	0.1UF	1	MAIN
C59	ECBT1C222MR5	0.0022UF	1	FJASP
C60	ECCR1H104ZF1	0.1UF	1	FJASP
C60	ECUV1H104ZFX	0.1UF	1	MAIN
C62	ECEA1CKA100B	10UF,16V	1	MAIN
C63,64	ECUV1H104ZFX	0.1UF	2	MAIN
C65	ECCR1H221J5	220PF	1	FJASP
C65	ECEA1CKA100B	10UF,16V	1	MAIN
C66	ECEA1HKNR47B	0.47UF,50V	1	MAIN
C66	ECKR1E473ZV	0.047UF	1	FJASP
C67	ECEA1HKA010B	1UF,50V	1	FJASP
C67	ECEA1HKNR47B	0.47UF,50V	1	MAIN
C73	ECCR1H104ZF1	0.1UF	1	FJASP
C77	ECUV1H104ZFX	0.1UF	1	MAIN
C78-82	ECUV1H101JG	100PF	5	MAIN
C83	ECUV1H104ZFX	0.1UF	1	MAIN
C84	ECEA0JKA101B	100UF,6.3V	1	MAIN
C85,86	ECUV1H101JG	100PF	2	MAIN
C87	ECRR1H104ZF1	0.1UF	1	MAIN
C88	ECA1VM470B	47UF,35V	1	MAIN
C89	ECRR1H104ZF1	0.1UF	1	MAIN
C90	ECUV1H101JG	100PF	1	MAIN
C91	ECA0JM102B	1000UF,6.3V	1	MAIN
C92	ECUV1H102JX	0.001UF	1	MAIN
C95	ECUV1H102JX	0.001UF	1	MAIN
C98	ECEA1CKA100B	10UF,16V	1	MAIN
C99,00	ECUV1H104ZFX	0.1UF	2	MAIN
C101	ECEA1CKA100B	10UF,16V	1	MAIN
C105,06	ECEA1HKNR47B	0.47UF,50V	2	MAIN
C107	ECUV1H101JG	100PF	1	MAIN
C108	ECRR1H104ZF1	0.1UF	1	MAIN
C109	ECUV1H101JG	100PF	1	MAIN
C110	ECRR1H104ZF1	0.1UF	1	MAIN
C111	ECUV1H104ZFX	0.1UF	1	MAIN
C116	ECEA0JKA101B	100UF,6.3V	1	MAIN
C117	ECUV1H104ZFX	0.1UF	1	MAIN
C120,21	ECUV1H221JG	220PF	2	MAIN
CN1	SJPG1JS120A	CONNECTOR	1	MAIN
CN1	SJPG2JS050A	CONNECTOR	1	CPL
CN1	SJPG7JS020A	CONNECTOR	1	FJASP
CN2	SJPG1JS060A	CONNECTOR	1	MAIN
CN2	SJPG2JS160A	CONNECTOR	1	CPL
CN2	SJPG7JS040A	CONNECTOR	1	FJASP
CN3	SJPG1JS050A	CONNECTOR	1	MAIN
CN3	SJPG1JS160A	CONNECTOR	1	MKB1
CN3	SJPG2JS160A	CONNECTOR	1	CPR
CN3	SJPG7JS030A	CONNECTOR	1	FJASP
CN4	QJJG01812AA	CONNECTOR	1	MKB2
CN4	SJPG1JS060A	CONNECTOR	1	FJASP
CN4	SJPG1JS160A	CONNECTOR	1	MAIN
CN4	SJPG2JS060A	CONNECTOR	1	CPL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
CN5	SJPG1JS120A	CONNECTOR	1	FJASP
CN6	SJPG1JS070A	CONNECTOR	1	MAIN
CN6	SJPG1JS070A	CONNECTOR	1	FJASP
CN7	SJPG1310A	CONNECTOR	1	FJASP
CN8	QJUG00212AA	CONNECTOR	1	MKB1
CN8	SJPG1340A	CONNECTOR	1	FJASP
CN8	SJPG1JS100A	CONNECTOR	1	MAIN
CN9	QJUG01408AA	CONNECTOR	1	MKB1
CN9	SJPG1JS040A	CONNECTOR	1	MAIN
D1	ERA1502V5	DIODE	1	⚠ ;FJASP
D1	MA165	DIODE	1	MKB1
D1	MA165TA5	DIODE	1	CPR
D1	MA8030HTX	Z.DIODE	1	MAIN
D1	SEL4214RLC05	LED,POWER INDICATOR	1	HP
D2	ERA1502V5	DIODE	1	⚠ FJASP
D2	MA111TX	DIODE	1	MAIN
D2	MA165	DIODE	1	MKB1
D2	MA165TA5	DIODE	1	CPR
D3	MA111TX	DIODE	1	MAIN
D3	MA165	DIODE	1	MKB1
D3	SVDGS3V20-15	RECTIFIER	1	⚠ FJASP
D4	MA165	DIODE	1	MKB1
D4	SVDGS3V20-15	RECTIFIER	1	⚠ FJASP
D5	MA165	DIODE	1	MKB1
D5	SVDGS3V20-15	RECTIFIER	1	⚠ FJASP
D6	MA165	DIODE	1	MKB1
D6	SVDGS3V20-15	RECTIFIER	1	⚠ FJASP
D7	MA165	DIODE	1	MKB1
D7	SVDGS3V20-15	RECTIFIER	1	⚠ FJASP
D8	MA111TX	DIODE	1	MAIN
D8	MA165	DIODE	1	MKB1
D8	SVDGS3V20-15	RECTIFIER	1	⚠ FJASP
D9	MA111TX	DIODE	1	MAIN
D9	MA165	DIODE	1	MKB1
D9	MA165TA5	DIODE	1	CPR
D9	SVDGS3V20-15	RECTIFIER	1	⚠ FJASP
D10	MA111TX	DIODE	1	MAIN
D10	MA165	DIODE	1	MKB1
D10	MA165TA5	DIODE	1	CPR
D10	SVDGS3V20-15	RECTIFIER	1	⚠ FJASP
D11	MA111TX	DIODE	1	MAIN
D11	MA165	DIODE	1	MKB1
D11	MA4180TA	ZENER,18V	1	FJASP
D12	MA111TX	DIODE	1	MAIN
D12	MA165	DIODE	1	MKB1
D12	MA4180TA	ZENER,18V	1	FJASP
D13	EK04W	DIODE	1	FJASP
D13	MA111TX	DIODE	1	MAIN
D13	MA165	DIODE	1	MKB1
D14	EK04W	DIODE	1	FJASP
D14	MA111TX	DIODE	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D14,15	MA165	DIODE	2	MKB1
D15	MA165TA5	DIODE	1	FJASP
D15	MA8056MTX	ZENER	1	MAIN
D16	MA165	DIODE	1	MKB1
D16	MA165TA5	DIODE	1	FJASP
D16	MA8047HTX	Z.DIODE	1	MAIN
D17	MA111TX	DIODE	1	MAIN
D17	MA165	DIODE	1	MKB1
D17	MA165TA5	DIODE	1	FJASP
D17	MA165TA5	DIODE	1	CPR
D18	MA111TX	DIODE	1	MAIN
D18	MA165	DIODE	1	MKB1
D18	MA165TA5	DIODE	1	CPR
D19	EK04W	DIODE	1	MAIN
D19,20	MA165	DIODE	2	MKB1
D20	MA2062LF	ZENER,6.2V	1	⚠ MAIN
D21	MA111TX	DIODE	1	MAIN
D21	MA165	DIODE	1	MKB1
D22	MA111TX	DIODE	1	MAIN
D22	MA165	DIODE	1	MKB1
D22	MA165TA5	DIODE	1	FJASP
D23	MA111TX	DIODE	1	MAIN
D23	MA165	DIODE	1	MKB1
D23	MA165TA5	DIODE	1	FJASP
D24	MA111TX	DIODE	1	MAIN
D24	MA165	DIODE	1	MKB1
D25	MA111TX	DIODE	1	MAIN
D25	MA165	DIODE	1	MKB1
D25	MA165TA5	DIODE	1	CPR
D26	MA111TX	DIODE	1	MAIN
D26	MA165	DIODE	1	MKB1
D26	MA165TA5	DIODE	1	CPR
D27	MA111TX	DIODE	1	MAIN
D27	MA165	DIODE	1	MKB1
D28	MA111TX	DIODE	1	MAIN
D28	MA165	DIODE	1	MKB1
D29	MA111TX	DIODE	1	MAIN
D29,30	MA165	DIODE	2	MKB1
D30	MA165TA5	DIODE	1	FJASP
D31	MA111TX	DIODE	1	MAIN
D31	MA165	DIODE	1	MKB1
D31	MA165TA5	DIODE	1	FJASP
D32	MA1039HTR	Z.DIODE	1	MAIN
D32	MA165	DIODE	1	MKB1
D32	MA165TA5	DIODE	1	FJASP
D33	MA165	DIODE	1	MKB1
D33	MA165TA5	DIODE	1	CPR
D34	MA165	DIODE	1	MKB1
D34	MA165TA5	DIODE	1	CPR
D35-41	MA165	DIODE	7	MKB1
D41	MA165TA5	DIODE	1	CPR
D42	MA165	DIODE	1	MKB1
D42	MA165TA5	DIODE	1	CPR
D43-49	MA165	DIODE	7	MKB1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D49	MA165TA5	DIODE	1	CPR
D50-59	MA165	DIODE	10	MKB1
D59	MA165TA5	DIODE	1	CPL
D60	MA165	DIODE	1	MKB1
D60	MA165TA5	DIODE	1	CPL
D61-65	MA165	DIODE	5	MKB1
D65	MA165TA5	DIODE	1	CPL
D66	MA165	DIODE	1	MKB1
D66	MA165TA5	DIODE	1	CPL
D67	MA165	DIODE	1	MKB1
D67	MA165TA5	DIODE	1	CPL
D68	MA165	DIODE	1	MKB1
D68	MA165TA5	DIODE	1	CPL
D69-73	MA165	DIODE	5	MKB1
D73	MA165TA5	DIODE	1	CPL
D74	MA165	DIODE	1	MKB1
D74	MA165TA5	DIODE	1	CPL
D75	MA165	DIODE	1	MKB1
D75	MA165TA5	DIODE	1	CPL
D76	MA165	DIODE	1	MKB1
D76	MA165TA5	DIODE	1	CPL
D77	MA165	DIODE	1	MKB1
D77	MA165TA5	DIODE	1	CPL
D78-81	MA165	DIODE	4	MKB1
D81	MA165TA5	DIODE	1	CPL
D82	MA165	DIODE	1	MKB1
D82	MA165TA5	DIODE	1	CPL
D83,84	MA165	DIODE	2	MKB1
D84	MA165TA5	DIODE	1	CPL
D85-89	MA165	DIODE	5	MKB2
D89	MA165TA5	DIODE	1	CPL
D90-76	MA165	DIODE	87	MKB2
D232-42	LN282RPXVTX2	LED(RED)	11	CPR
D244-46	LN282RPXVTX2	LED(RED)	3	CPR
D256-59	LN282RPXVTX2	LED(RED)	4	CPL
D264-67	LN282RPXVTX2	LED(RED)	4	CPL
D280-83	LN282RPXVTX2	LED(RED)	4	CPL
D288,89	LN282RPXVTX2	LED(RED)	2	CPL
D291	LN282RPXVTX2	LED(RED)	1	CPL
F1	XBA1C63NU100	6.3A,125V	1	⚠ FJASP P PC PY ONLY
F1	XBA2C31TB0	T3,15A,250V	1	⚠ FJASP EXCEPT P PC PY
F2,F3	XBA2C20TB0	T2A,250V	2	⚠
F4	XBA1C25NU100	2.5A,125V	1	⚠ FJASP P PC PY ONLY
F4	XBA2C20TB0	T2A,250V	1	⚠ FJASP EXCEPT P PC PY
F5	XBA1C25NU100	2.5A,125V	1	⚠ FJASP P PC PY ONLY
F5	XBA2C20TB0	T2A,250V	1	⚠ FJASP EXCEPT P PC PY
IC1	HD74LS138P	3 TO 8 DECODER	1	MKB1
IC1	KIA7815PI	+15V VOLTAGE REGULATOR	1	⚠ FJASP
IC1	M37471M2196S	8 BIT MICROCOMPUTER	1	CPL
IC1	TMP95C061BF	16 BIT MICROCOMPUTER	1	MAIN
IC2	D74HC139GSE2	DECODER	1	MAIN
IC2	HD74LS07P	3 TO 8 DECODER	1	CPL

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC2	KIA7915PI	-15V VOLTAGE REGULATOR	1	⚠ FJASP
IC3	HD74LS07P	3 TO 8 DECODER	1	CPL
IC3	HD74LS138P	3 TO 8 DECODER	1	MKB2
IC3	M5218AL	OPERATIONAL AMP	1	FJASP
IC3	M5M34051FPE2	BUS TRANSCEIVER	1	MAIN
IC4	HD74LS138P	3 TO 8 DECODER	1	MKB2
IC4	M5218AL	OPERATIONAL AMP	1	FJASP
IC4	T7WU04FTE12L	TRIPLE INVERTER	1	MAIN
IC5	M5218AL	OPERATIONAL AMP	1	FJASP
IC5	T7WU04FTE12L	TRIPLE INVERTER	1	MAIN
IC6	M5218AL	OPERATIONAL AMP	1	FJASP
IC6	QS1GX3C04005	4M BIT MASK ROM	1	MAIN
IC7,C8	M5218AL	OPERATIONAL AMP	2	FJASP
IC8	M5256DFP70LL	256K BIT STATIC RAM	1	MAIN
IC9	M5218AL	OPERATIONAL AMP	1	FJASP
IC9	M5256DFP70LL	256K BIT STATIC RAM	1	MAIN
IC10	D97315GD201	TONE GENERATOR LSI	1	MAIN
IC10	M5218AL	OPERATIONAL AMP	1	FJASP
IC11	LH5P832N-10	256K BIT PSEUDO STATIC RA	1	MAIN
IC11	M5218AL	OPERATIONAL AMP	1	FJASP
IC12	QCPL-260L	PHOTO COUPLER	1	FJASP
IC12	QSIGX3C64002	64M BIT MASK ROM	1	MAIN
IC14	TC7W08FTE12L	DUAL 2-INPUT AND GATES	1	MAIN
IC15	TC7W04FTE12L	TRIPLE INVERTER	1	MAIN
IC16	D97315GD201	TONE GENERATOR LSI	1	MAIN
IC17	LH5P832N-10	256K BIT PSEUDO STATIC RA	1	MAIN
IC18	QSIGX3C64003	64M BIT MASK ROM	1	MAIN
IC20	TC7W08FTE12L	DUAL 2-INPUT AND GATES	1	MAIN
IC21,22	PCM1734EA-E2	D/A CONVERTER	2	MAIN
IC26	M5218AFPE3	OPERATIONAL AMP	1	MAIN
JK1	QJSG007AA	PEDAL IN	1	FJASP
JK1	QJSG017AA	COMPUTER	1	COM
JK1	SJJG100A	HEADPHONE 1	1	HP
JK2	QJSG016AA	MIDI IN	1	FJASP
JK2	SJJG100A	HEADPHONE 2	1	HP
JK3	QJSG016AA	MIDI	1	FJASP
JK5-K8	QJJG003AA	LINE OUT,AUX IN	4	FJASP
JK9	SJVD0203B	AC INLET	1	⚠ FJASP
JR1-R3	ERDS2T0	0,1/4W	3	PKB
L1	QLQGT1B100MA	10UH	1	MAIN
L1	QLQGT2T100LA	10UH×2	1	⚠ FJASP
L1	QLQGT3T131LA	130UH×3	1	HP
L2	QLBG005A	COIL	1	⚠ MAIN
L2,L3	QLQGT3T131LA	130UH×3	2	FJASP
L4	QLQGT1B101KA	100UH	1	MAIN
L4	QLQGT3T131LA	130UH×3	1	FJASP
L5	QLQGT1B100MA	10UH	1	MAIN
L5	QLQGT3T131LA	130UH×3	1	FJASP
L6	QLBG005A	COIL	1	⚠ MAIN
L6	QLQGT3T131LA	130UH×3	1	FJASP

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L7	QLBG005A	COIL	1	⚠ MAIN
L7	QLQGT3T131LA	130UH×3	1	FJASP
L8,L9	ERJ6GEY0R00V	CHIP JUMPER	2	MAIN
L11,12	ERJ6GEY0R00V	CHIP JUMPER	2	MAIN
L14-27	ERJ6GEY0R00V	CHIP JUMPER	14	MAIN
L29-31	ERJ6GEY0R00V	CHIP JUMPER	3	MAIN
L33-35	ERJ6GEY0R00V	CHIP JUMPER	3	MAIN
L41-45	ERJ6GEY0R00V	CHIP JUMPER	5	MAIN
L46-49	ERJ6GEYJ471V	470	4	MAIN
L50	ERJ6GEY0R00V	CHIP JUMPER	1	MAIN
LED1	T512SRDBS119	7 SEGENTS DISPLAY	1	CPR
P1	QPGG0481AB	PACKING CASE(SX-PX554M)	1	
PCB1	SXPG235021	MAIN P.C.B.	1	
PCB2	SXPG2241191A	FJASP E P.C.B.	1	EB EZ EG EX GN
PCB2	SXPG2241201A	FJASP M P.C.B.	1	P,PC,PY
PCB2	SXPG2241211A	FJASP X P.C.B.	1	X,XA
PCB3	SXPG227871A	CPL P.C.B.	1	
PCB4	SXPG227871B	CPR P.C.B.	1	
PCB5	SXPG227911	COM P.C.B.	1	
PCB6	SXPG2243220	HP P.C.B.	1	
PCB7	SXPG226611A	MKB1 P.C.B.	1	
PCB8	SXPG226611B	MKB2 P.C.B.	1	
PCB9	SXPG218221	PKB P.C.B.	1	
Q1	2SB709ARTX	TRANSISTOR	1	MAIN
Q1	2SC1815TPE2	TRANSISTOR	1	FJASP
Q2	2SA830STPB	TRANSISTOR	1	CPL
Q2	2SB709ARTX	TRANSISTOR	1	MAIN
Q2	2SC1815TPE2	TRANSISTOR	1	FJASP
Q3	2SA1015TPE2	TRANSISTOR	1	FJASP
Q3	2SA830STPB	TRANSISTOR	1	CPL
Q3	2SD601AQTX	TRANSISTOR	1	MAIN
Q4	2SA830STPB	TRANSISTOR	1	CPL
Q4	2SC1815TPE2	TRANSISTOR	1	FJASP
Q5	2SA1015TPE2	TRANSISTOR	1	FJASP
Q5	2SA830STPB	TRANSISTOR	1	CPL
Q5	2SD601AQTX	TRANSISTOR	1	MAIN
Q6	2SA1015TPE2	TRANSISTOR	1	FJASP
Q6	2SA830STPB	TRANSISTOR	1	CPL
Q6	2SD601AQTX	TRANSISTOR	1	MAIN
Q7	2SB621ARSTA	TRANSISTOR	1	MAIN
Q7	2SD592ARSTA	TRANSISTOR	1	FJASP
Q8	2SB621ARSTA	TRANSISTOR	1	FJASP
Q8,Q9	2SC1815TPE2	TRANSISTOR	2	MAIN
Q9	2SD592ARSTA	TRANSISTOR	1	FJASP
Q10	2SB621ARSTA	TRANSISTOR	1	FJASP
Q11	2SC1815TPE2	TRANSISTOR	1	FJASP
Q12	2SA1015TPE2	TRANSISTOR	1	FJASP
Q13	2SC1815TPE2	TRANSISTOR	1	FJASP
Q14	2SA1015TPE2	TRANSISTOR	1	FJASP
Q15	2SA1725PY	TRANSISTOR	1	FJASP

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q16	2SC4511PY	TRANSISTOR	1	FJASP
Q17	2SA1725PY	TRANSISTOR	1	FJASP
Q18	2SC4511PY	TRANSISTOR	1	FJASP
Q20	2SA933STRS	TRANSISTOR	1	FJASP
R1	ERDS2TJ103T	10K	1	FJASP
R1	ERDS2TJ472T	4.7K	1	CPL
R1	ERG1SJ470	47,1W,FLAME-PROOF	1	⚠ HP
R2	ERDS2T0T	0,1/4W	1	CPL
R2	ERDS2TJ103T	10K	1	FJASP
R2	ERG1SJ470	47,1W,FLAME-PROOF	1	⚠ HP
R2	ERJ6GEYJ472V	4.7K	1	MAIN
R3	ERD2FCVJ6R8T	6.8,1/4W,FUSE TYPE	1	⚠ FJASP
R3	ERDS2T0T	0,1/4W	1	CPL
R3	ERG1SJ470	47,1W,FLAME-PROOF	1	⚠ HP
R3	ERJ6GEYJ103V	10K	1	MAIN
R4	ERD2FCVJ6R8T	6.8,1/4W,FUSE TYPE	1	⚠ FJASP
R4	ERDS2TJ101T	100	1	CPL
R4	ERG1SJ470	47,1W,FLAME-PROOF	1	⚠ HP
R4	ERJ6GEYJ222V	2.2K	1	MAIN
R5	ERD2FCVJ6R8T	6.8,1/4W,FUSE TYPE	1	⚠ FJASP
R5	ERDS2TJ471T	470	1	CPL
R5	ERJ6GEYJ102V	1K	1	MAIN
R6	ERDS2TJ104T	100K	1	FJASP
R6	ERDS2TJ221T	220	1	CPL
R6	ERJ6GEYJ102V	1K	1	MAIN
R7	ERDS2TJ221T	220	1	CPL
R7	ERDS2TJ473T	47K	1	FJASP
R7	ERJ6GEYJ104V	100K	1	MAIN
R8	ERDS2TJ471T	470	1	CPL
R8	ERDS2TJ472	4.7K	1	PKB
R8	ERDS2TJ473T	47K	1	FJASP
R8	ERJ6GEYJ104V	100K	1	MAIN
R9	ERDS2TJ103T	10K	1	FJASP
R9	ERDS2TJ472	4.7K	1	PKB
R9	ERJ6GEYJ101V	100	1	MAIN
R10	ERDS2TJ103T	10K	1	CPL
R10	ERDS2TJ332T	3.3K	1	FJASP
R10	ERDS2TJ472	4.7K	1	PKB
R10	ERJ6GEYJ471V	470	1	MAIN
R11	ERDS2TJ104T	100K	1	CPL
R11	ERDS2TJ472T	4.7K	1	FJASP
R11	ERJ6GEYJ471V	470	1	MAIN
R12	ERDS2TJ103T	10K	1	FJASP
R12	ERJ6GEYJ154V	150K	1	MAIN
R13	ERDS2TJ103T	10K	1	FJASP
R13	ERJ6GEYJ154V	150K	1	MAIN
R14	ERDS2TJ103T	10K	1	FJASP
R14	ERJ6GEYJ154V	150K	1	MAIN
R15	ERDS2TJ103T	10K	1	CPL
R15	ERDS2TJ472T	4.7K	1	FJASP
R15	ERJ6GEYJ152V	1.5K	1	MAIN
R16	ERDS2TJ103T	10K	1	CPL

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R16	ERJ6GEYJ152V	1.5K	1	MAIN
R16	QLQGT1B800MB	80UH	1	⚠ FJASP
R17	ERDS2TJ103T	10K	1	CPL
R17	ERDS2TJ332T	3.3K	1	FJASP
R17	ERJ6GEYJ152V	1.5K	1	MAIN
R18	ERDS2TJ103T	10K	1	CPL
R18	ERDS2TJ334T	330K	1	FJASP
R18	ERJ6GEYJ103V	10K	1	MAIN
R19	ERDS2TJ103T	10K	1	CPL
R19	ERDS2TJ274T	270K	1	FJASP
R19	ERJ6GEY0R00V	0	1	MAIN
R20	ERDS2TJ222T	2.2K	1	FJASP
R20	ERJ6GEY0R00V	0	1	MAIN
R21	ERDS2TJ103T	10K	1	CPL
R21	ERDS2TJ220T	22	1	FJASP
R21	ERJ6GEY0R00V	0	1	MAIN
R22	ERD25FVJ4R7T	4.7,1/4W,FLAME-PROOF	1	FJASP
R22	ERDS2TJ103T	10K	1	CPL
R22	ERJ6GEY0R00V	0	1	MAIN
R23	ERD2FCVG220T	22	1	⚠ FJASP
R23	ERDS2TJ103T	10K	1	CPL
R23	ERJ6GEY0R00V	0	1	MAIN
R24	ERDS2TJ103T	10K	1	CPL
R24	ERDS2TJ334T	330K	1	FJASP
R24	ERJ6GEYJ105V	1M	1	MAIN
R25	ERDS2TJ103T	10K	1	CPL
R25	ERDS2TJ274T	270K	1	FJASP
R25	ERJ6GEY0R00V	0	1	MAIN
R26	ERDS2TJ101T	100	1	CPL
R26	ERDS2TJ222T	2.2K	1	FJASP
R26	ERJ6GEYJ471V	470	1	MAIN
R27	ERDS2TJ101T	100	1	CPL
R27	ERDS2TJ220T	22	1	FJASP
R27	ERJ6GEYJ471V	470	1	MAIN
R28	ERD25FVJ4R7T	4.7,1/4W,FLAME-PROOF	1	FJASP
R28	ERDS2TJ101T	100	1	CPL
R28	ERJ6GEYJ471V	470	1	MAIN
R29	ERD2FCVG220T	22	1	⚠ FJASP
R29	ERDS2TJ101T	100	1	CPL
R29	ERJ6GEYJ471V	470	1	MAIN
R30	ERDS2TJ101T	100	1	CPL
R30	ERDS2TJ332T	3.3K	1	FJASP
R30	ERJ6GEYJ103V	10K	1	MAIN
R31	ERDS2TJ101T	100	1	CPL
R31	ERDS2TJ223T	22K	1	FJASP
R32	ERDS2TJ101T	100	1	CPL
R32	ERDS2TJ223T	22K	1	FJASP
R32	ERJ6GEYJ101V	100	1	MAIN
R33	ERDS2TJ101T	100	1	CPL
R33	ERDS2TJ563T	56K	1	FJASP
R34	ERDS2TJ101T	100	1	CPL
R34	ERDS2TJ682T	6.8K	1	FJASP
R34	ERDS2TJ6R8T	6.8	1	FJASP X XA XS XT XD ONLY

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R35	ERDS2TJ101T	100	1	CPL
R35	ERDS2TJ332T	3.3K	1	FJASP
R35	ERJ6GEYJ105V	1M	1	MAIN
R36	ERDS2TJ101T	100	1	CPL
R36	ERDS2TJ223T	22K	1	FJASP
R36	ERJ6GEYJ472V	4.7K	1	MAIN
R37	ERDS2TJ101T	100	1	CPL
R37	ERDS2TJ223T	22K	1	FJASP
R38	ERDS2TJ563T	56K	1	FJASP
R39	ERDS2TJ682T	6.8K	1	FJASP
R39	ERJ6GEYJ222V	2.2K	1	MAIN
R40	ERDS2TJ682T	6.8K	1	FJASP
R40	ERJ6GEYJ222V	2.2K	1	MAIN
R41	ERDS2TJ102T	1K	1	FJASP
R41	ERJ6GEYJ222V	2.2K	1	MAIN
R42	ERDS2TJ224T	220K	1	FJASP
R42	ERJ6GEYJ222V	2.2K	1	MAIN
R43	ERDS2TJ182T	1.8K	1	FJASP
R43	ERJ6GEYJ101V	100	1	MAIN
R44	ERDS2TJ274T	270K	1	FJASP
R44	ERJ6GEYJ103V	10K	1	MAIN
R45	ERDS2TJ102T	1K	1	FJASP
R45	ERJ6GEYJ332V	3.3K	1	MAIN
R46	ERDS2TJ184T	180K	1	FJASP
R47	ERDS2TJ182T	1.8K	1	FJASP
R47	ERJ6GEYJ102V	1K	1	MAIN
R48	ERDS2TJ224T	220K	1	FJASP
R48	ERJ6GEYJ103V	10K	1	MAIN
R49	ERDS2TJ102T	1K	1	FJASP
R49	ERJ6GEYJ103V	10K	1	MAIN
R50	ERDS2TJ184T	180K	1	FJASP
R50	ERJ6GEYJ221V	220	1	MAIN
R51	ERDS2TJ272T	2.7K	1	FJASP
R51	ERJ6GEYJ221V	220	1	MAIN
R52	ERDS2TJ224T	220K	1	FJASP
R52	ERJ6GEYJ221V	220	1	MAIN
R53	ERDS2TJ682T	6.8K	1	FJASP
R53	ERJ6GEYJ221V	220	1	MAIN
R54	ERDS2TJ182T	1.8K	1	FJASP
R54	ERJ6GEYJ471V	470	1	MAIN
R55	ERDS2TJ274T	270K	1	FJASP
R55	ERJ6GEYJ681V	680	1	MAIN
R56	ERDS2TJ102T	1K	1	FJASP
R56	ERJ6GEYJ471V	470	1	MAIN
R57	ERDS2TJ224T	220K	1	FJASP
R57	ERJ6GEYJ222V	2.2K	1	MAIN
R58	ERDS2TJ182T	1.8K	1	FJASP
R58	ERJ6GEYJ102V	1K	1	MAIN
R59	ERDS2TJ224T	220K	1	FJASP
R59	ERJ6GEYJ472V	4.7K	1	MAIN
R60	ERDS2TJ102T	1K	1	FJASP
R60	ERJ6GEYJ471V	470	1	MAIN
R61	ERDS2TJ184T	180K	1	FJASP
R61	ERJ6GEYJ681V	680	1	MAIN

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R62	ERDS2TJ102T	1K	1	FJASP
R62	ERJ6GEYJ471V	470	1	MAIN
R63	ERDS2TJ184T	180K	1	FJASP
R63	ERJ6GEYJ221V	220	1	MAIN
R64	ERDS2TJ272T	2.7K	1	FJASP
R64	ERJ6GEYJ221V	220	1	MAIN
R65	ERDS2TJ224T	220K	1	FJASP
R65	ERJ6GEYJ105V	1M	1	MAIN
R66	ERDS2TJ223T	22K	1	FJASP
R66	ERJ6GEYJ103V	10K	1	MAIN
R67	ERDS2TJ564T	560K	1	FJASP
R68	ERDS2TJ102T	1K	1	FJASP
R69	ERDS2TJ272T	2.7K	1	FJASP
R70	EROS2TKF1001	1K	1	FJASP
R71	EROS2TKF1002	10K	1	FJASP
R72	EROS2TKF1001	1K	1	FJASP
R73	ERDS2TJ272T	2.7K	1	FJASP
R74	ERD2FCVG101T	100,1/4W,FUSE TYPE	1	⚠ FJASP
R75	ERJ6GEYJ471V	470	1	MAIN
R76	ERDS2TJ331T	330	1	FJASP
R76	ERJ6GEYJ102V	1K	1	MAIN
R77,78	ERDS2TJ331T	330	2	FJASP
R79	ERD2FCVG101T	100,1/4W,FUSE TYPE	1	⚠ FJASP
R80	ERD2FCVJ4R7T	4.7,1/4W,FUSE TYPE	1	⚠ FJASP
R81	ERF5TJ100	10,5W,FLAME-PROOF	1	⚠ FJASP
R82	ERDS2TJ223T	22K	1	FJASP
R83	ERDS2TJ564T	560K	1	FJASP
R84	ERDS2TJ102T	1K	1	FJASP
R85	ERDS2TJ272T	2.7K	1	FJASP
R86	EROS2TKF1001	1K	1	FJASP
R87	ERJ6GEYJ471V	470	1	MAIN
R87	EROS2TKF1002	10K	1	FJASP
R88	EROS2TKF1001	1K	1	FJASP
R89	ERDS2TJ272T	2.7K	1	FJASP
R90	ERD2FCVG101T	100,1/4W,FUSE TYPE	1	⚠ FJASP
R91,92	ERDS2TJ331T	330	2	FJASP
R92	ERJ6GEYJ103V	10K	1	MAIN
R93	ERDS2TJ331T	330	1	FJASP
R93	ERJ6GEYJ101V	100	1	MAIN
R94	ERD2FCVG101T	100,1/4W,FUSE TYPE	1	⚠ FJASP
R94	ERJ6GEY0R00V	0	1	MAIN
R95	ERD2FCVJ4R7T	4.7,1/4W,FUSE TYPE	1	⚠ FJASP
R95	ERJ6GEYJ471V	470	1	MAIN
R96	ERF5TJ100	10,5W,FLAME-PROOF	1	⚠ FJASP
R96,97	ERJ6GEYJ331V	330	2	MAIN
R98	ERJ6GEYJ473V	47K	1	MAIN
R99,00	ERDS2TJ681T	680	2	FJASP
R102	ERDS2TJ471T	470	1	FJASP
R102,03	ERJ6GEYJ123V	12K	2	MAIN
R104	ERDS2TJ471T	470	1	FJASP
R104,05	ERJ6GEYJ123V	12K	2	MAIN
R106	ERDS2TJ471T	470	1	FJASP
R106,07	ERJ6GEYJ104V	100K	2	MAIN

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

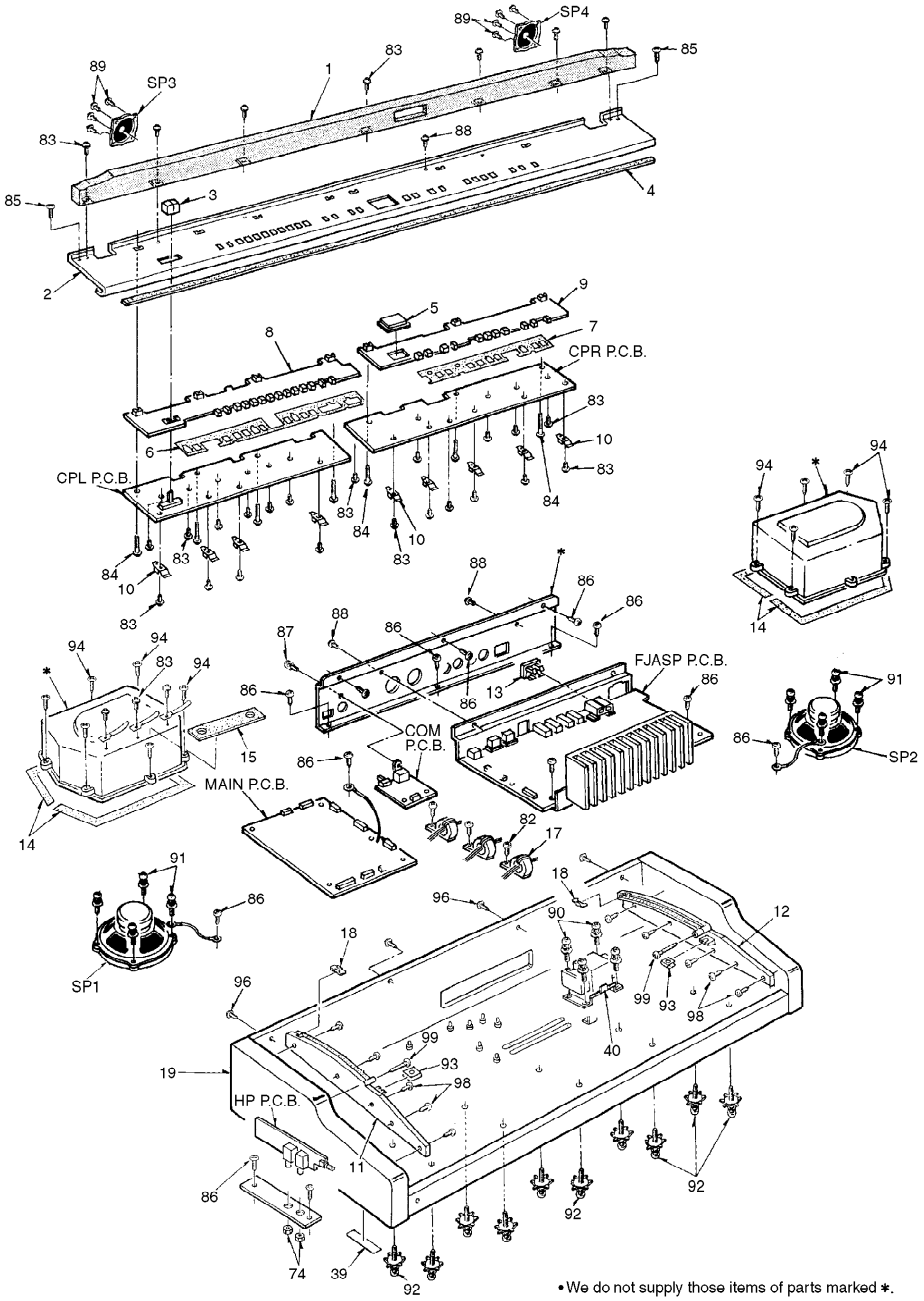
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R110	ERDS2TJ151T	150	1	FJASP
R111	ERDS2TJ330T	33	1	FJASP
R111,12	ERJ6GEYJ103V	10K	2	MAIN
R113	ERDS2TJ221T	220	1	FJASP
R113	ERJ6GEYJ471V	470	1	MAIN
R114	ERDS2TJ331T	330	1	FJASP
R114	ERJ6GEYJ471V	470	1	MAIN
R115	ERQ14AJ2R0E	2,1/4W FUSE TYPE	1	⚠ FJASP
R116	ERJ6GEYJ471V	470	1	MAIN
R116	ERQ14AJ2R0E	2,1/4W FUSE TYPE	1	⚠ FJASP
R117,18	ERJ6GEYJ471V	470	2	MAIN
R200,01	ERJ6GEY0R00V	0	2	MAIN
R202	ERJ6GEYJ221V	220	1	MAIN
R204	ERJ6GEY0R00V	0	1	MAIN
R210,11	ERJ6GEY0R00V	0	2	MAIN
S1	QSPG1010AA	POWER SWITCH	1	
S1	QSSGT011AA	SLIDE SWITCH	1	COM
S1-S3	QSTGT001AA	LEVER SWITCH	3	PKB
SP1,2	QASG14P01A	14CM,4 Ω	2	
SP3,4	QASG65PH03A	6.5CM,8 Ω	2	
SW1	EVQ21507K	PUSH SWITCH	1	CPR
SW1	QSRGT005AA	VOLTAGE SELECTOR	1	⚠ FJASP
SW2	EVQ21507K	PUSH SWITCH	1	CPR
SW9,10	EVQ21507K	PUSH SWITCH	2	CPR
SW17 18	EVQ21507K	PUSH SWITCH	2	CPR
SW25 26	EVQ21507K	PUSH SWITCH	2	CPR
SW33 34	EVQ21507K	PUSH SWITCH	2	CPR
SW41 42	EVQ21507K	PUSH SWITCH	2	CPR
SW49	EVQ21507K	PUSH SWITCH	1	CPR
SW59 60	EVQ21507K	PUSH SWITCH	2	CPL
SW65-68	EVQ21507K	PUSH SWITCH	4	CPL
SW73-76	EVQ21507K	PUSH SWITCH	4	CPL
SW81 82	EVQ21507K	PUSH SWITCH	2	CPL
SW84	EVQ21507K	PUSH SWITCH	1	CPL
SW89	EVQ21507K	PUSH SWITCH	1	CPL
SW1-4	—	SWITCH	4	MKB1*1
SW5-16	—	SWITCH	12	MKB1*1
SW17-28	—	SWITCH	12	MKB1*1
SW29-40	—	SWITCH	12	MKB1*1
SW41-52	—	SWITCH	12	MKB1 MKB2*1
SW53-64	—	SWITCH	12	MKB2*1
SW65-76	—	SWITCH	12	MKB2*1
SW77-88	—	SWITCH	12	MKB2*1
VR2	QRVG25P01B53	5KÉB,MAIN VOLUME	1	CPL
W1	QEXGRA01005A	WIRE	1	HP
W1	QJLG013AA	PEDAL CORD	1	
W2	QEXGST16060B	CONNECTOR WITH WIRE	1	

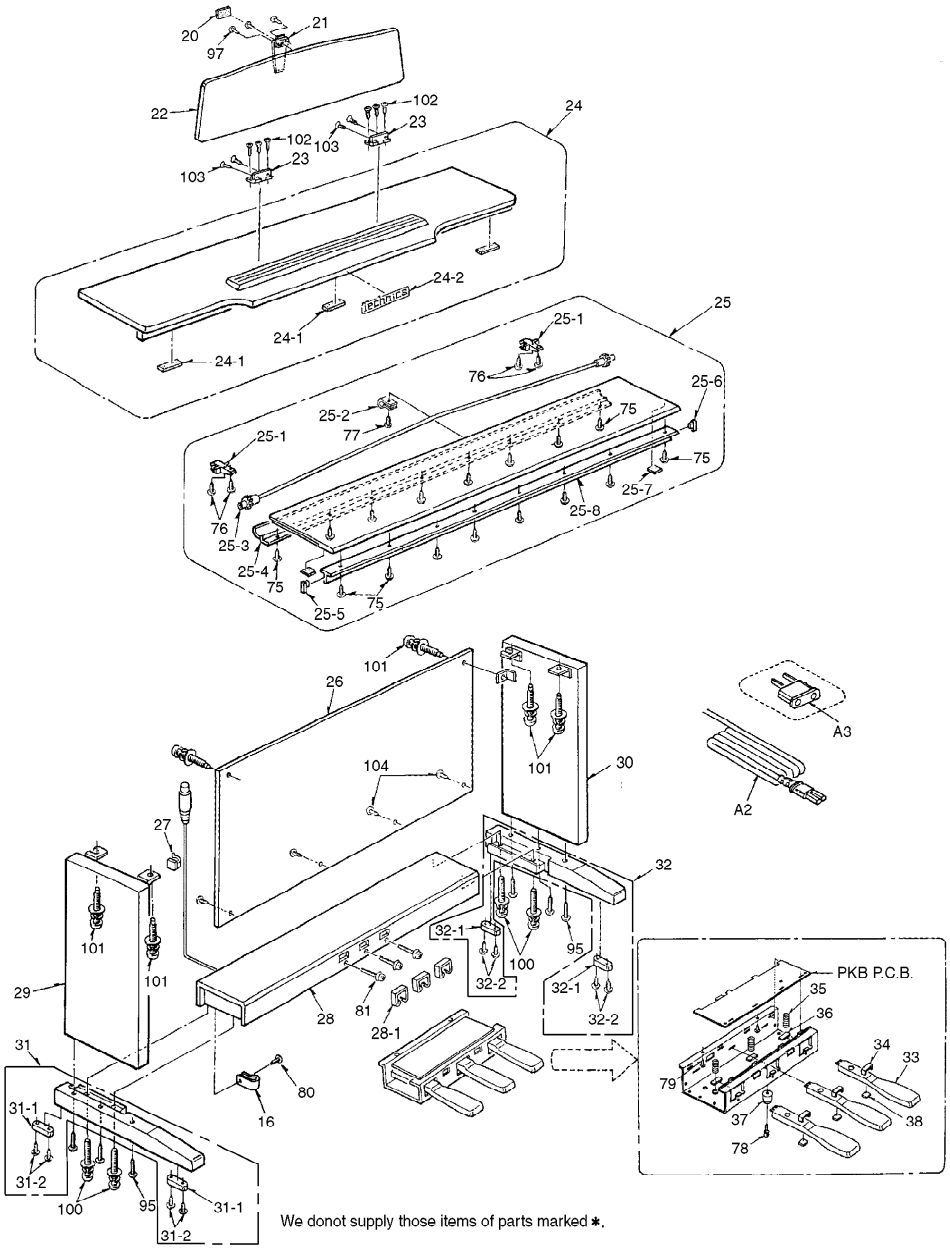
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
W3	QEXSS05028A	CONNECTOR WITH WIRE	1	
W4	QEXGSS6030B	CONNECTOR WITH WIRE	1	
W5	QEXGSS10015A	CONNECTOR WITH WIRE	1	
W6	QEXGSS07010A	CONNECTOR WITH WIRE	1	
W7	QEXGSS12010A	CONNECTOR WITH WIRE	1	
W8	QEXGVH04075F	CONNECTOR WITH WIRE	1	
W9	QEXGSS16022C	CONNECTOR WITH WIRE	1	
W10	QEXGVH05055C	CONNECTOR WITH WIRE	1	
W11	QEXGSS06105A	CONNECTOR WITH WIRE	1	
W12	QEXGVH03105B	CONNECTOR WITH WIRE	1	
W13	QEUGQ8H08BCZ	CONNECTOR WITH WIRE	1	MKB2
X1	EFOMC4004T5	4MHZ,CERAMIC OSCILLATOR	1	CPL
X1	QSXG2F2400A	24MHZ,CERAMIC OSCILLATOR	1	MAIN
X2	QSXG2FR614DA	614MHZ,CERAMIC OSCILLATOR	1	MAIN
X3	QSXG2F0100DA	1MHZ,CERAMIC OSCILLATOR	1	MAIN
X4	QSXG1A1128A	11.28MHZ,CRYSTAL OSCILLAT	1	MAIN
Z1-Z9	EXBV8V101JV	100 Ω × 4	9	MAIN
Z11	EXBV8V103JV	10K Ω × 4	1	MAIN
Z12-31	EXBV8V471JV	470 Ω × 4	20	MAIN
Z32,33	EXBV8V331JV	330K Ω × 4	2	MAIN
Z34-36	EXBS8V471J	470 Ω × 4	3	MAIN
Z37,38	EXBV8V472JV	4.7K Ω × 4	2	MAIN
Z39,40	EXBV8V223JV	22K Ω × 4	2	MAIN

Notes:

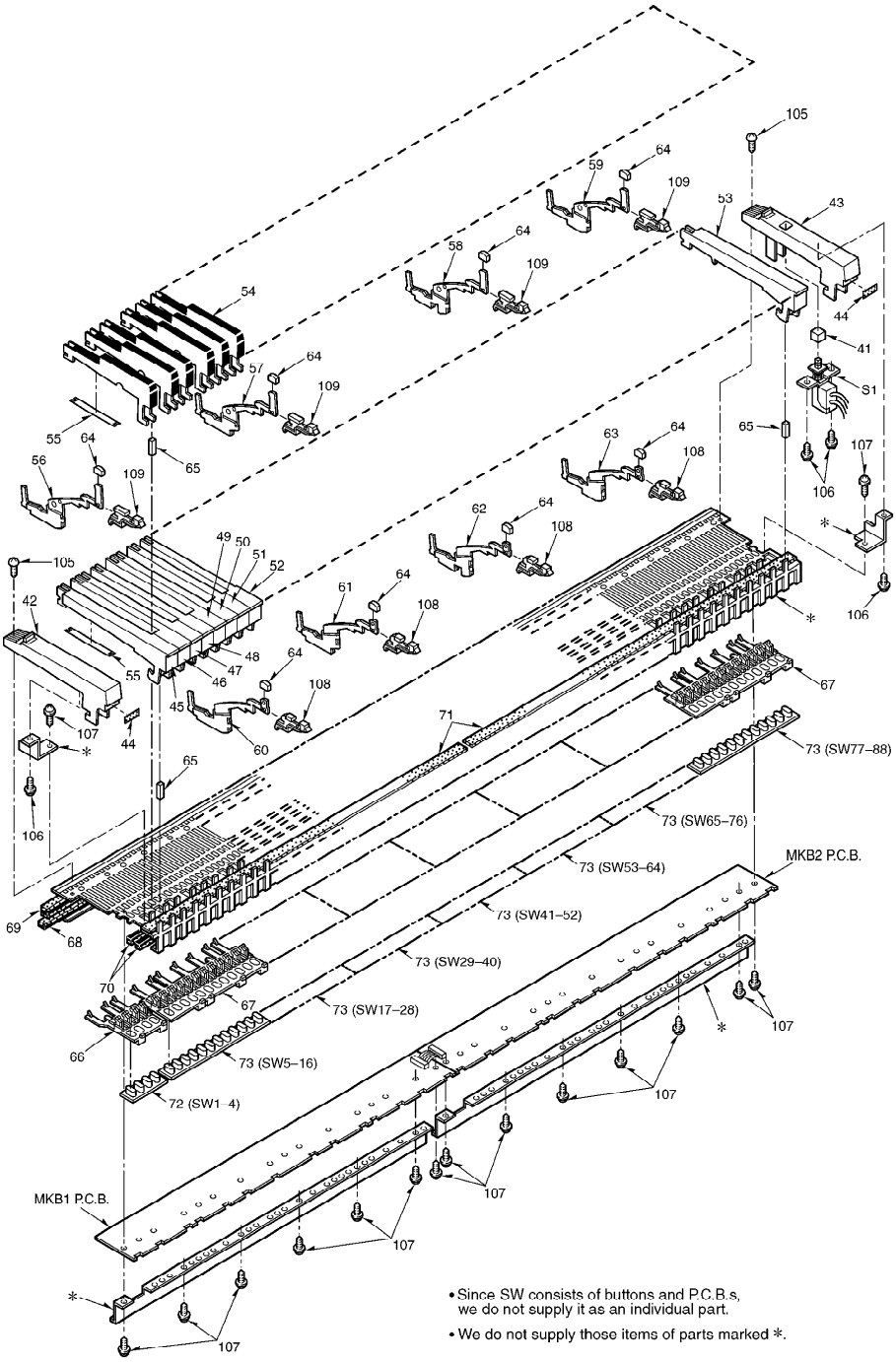
***1: Since SW consists of buttons and P.C.B.s, we do not supply it as an individual part (refer to "CABINET PARTS LOCATION" on).**

16. CABINET PARTS LOCATION

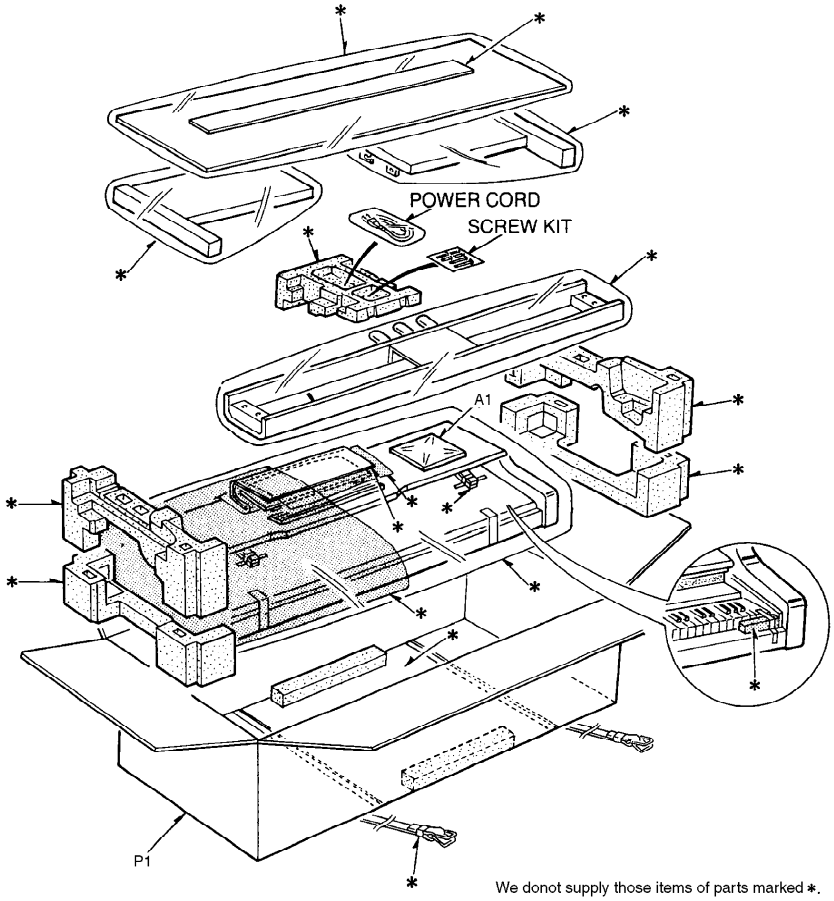

SP4
SP3
CPR P.C.B.
CPL P.C.B.
FJASP P.C.B.
COM P.C.B.
MAIN P.C.B.
HP P.C.B.
SP1
SP2
• We do not supply those items of parts marked ∗.



We donot supply those items of parts marked ✱.

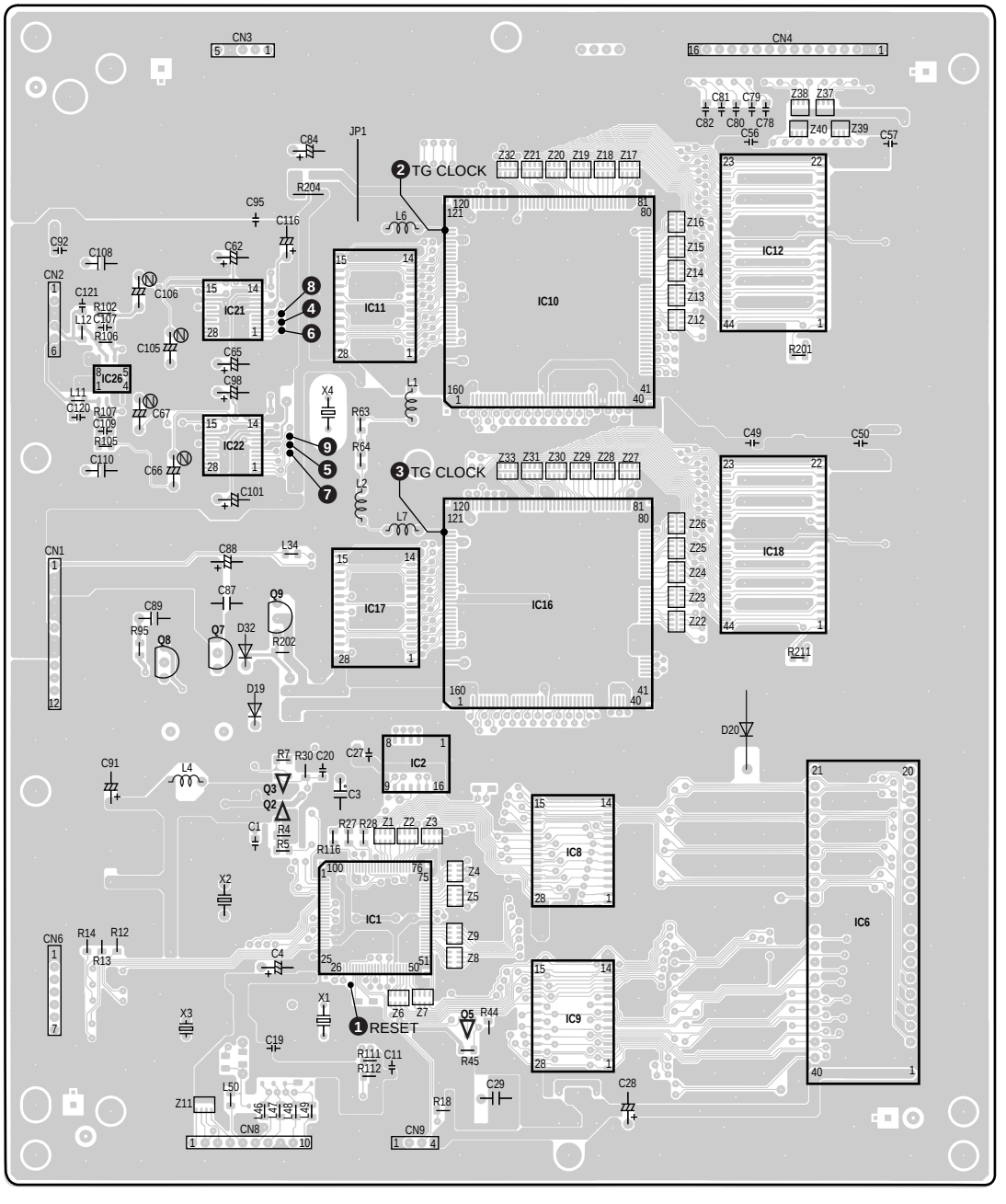


17. PACKAGING



/ Printed in Japan / S000501540 HM/AM

A MAIN P.C.B. (COMPONENT SIDE)



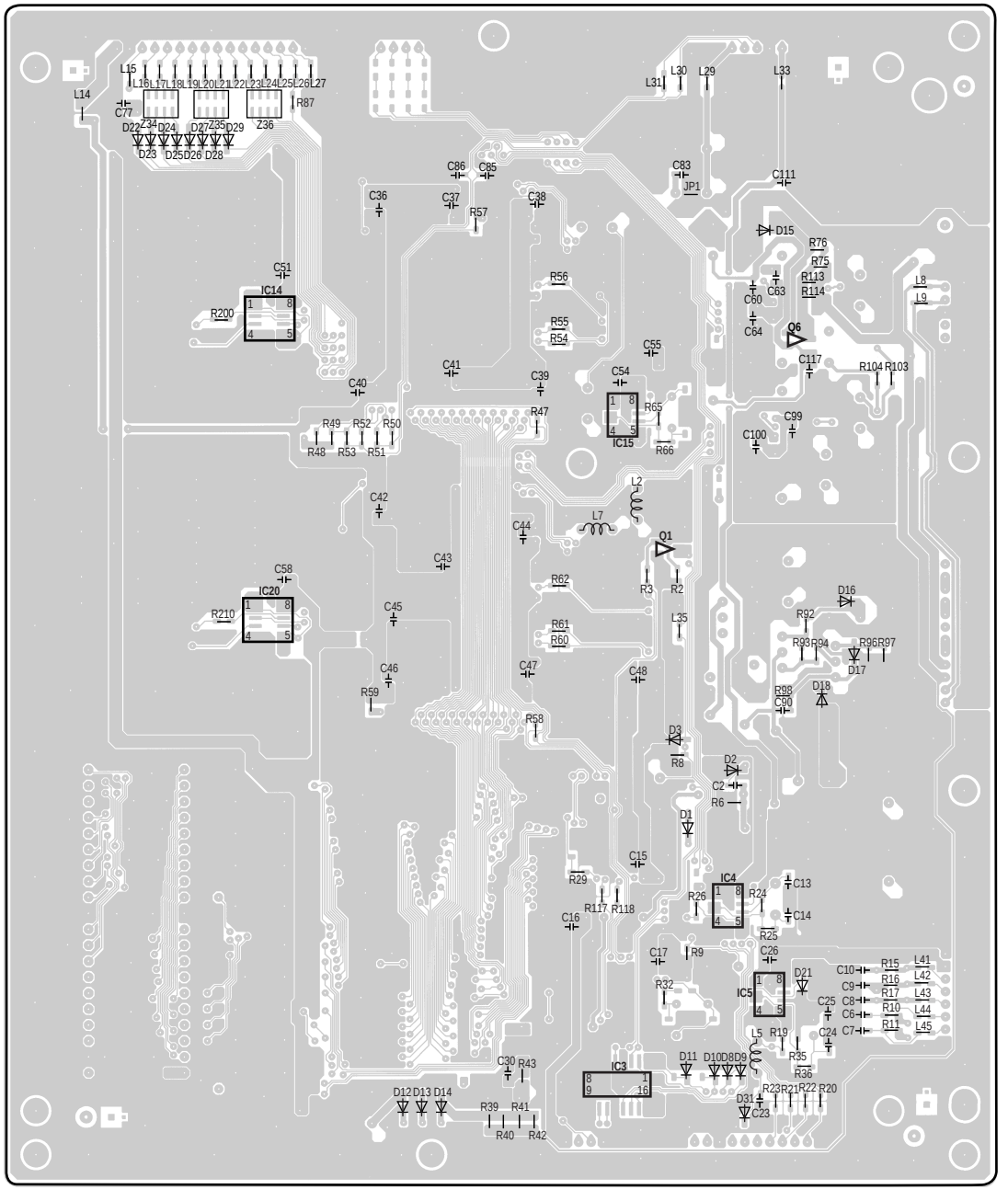
ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
A MAIN P.C.B. (COMPONENT SIDE)									
IC1	C-6	Z1	C-5	Z32	C-2	R27	B-5	C56	D-2
IC2	C-5	Z2	C-5	Z33	C-3	R28	C-5	C57	E-2
IC6	E-6	Z3	C-5	Z37	E-2	R30	B-5	C62	B-2
IC8	C-5	Z4	C-5	Z38	E-2	R44	C-6	C65	B-3
IC9	C-6	Z5	C-5	Z39	E-2	R45	C-6	C66	A-3
IC10	C-3	Z6	C-6	Z40	E-2	R63	B-3	C67	A-3
IC11	C-3	Z7	C-6	L1	C-3	R64	B-3	C78	D-2
IC12	D-2	Z8	C-6	L2	B-3	R95	A-4	C79	D-2
IC16	C-4	Z9	C-6	L4	B-5	R102	A-3	C80	D-2
IC17	C-4	Z11	B-6	L6	C-2	R105	A-3	C81	D-2
IC18	D-4	Z12	D-3	L7	C-4	R106	A-3	C82	D-2
IC21	B-3	Z13	D-3	L11	A-3	R107	A-3	C84	B-2
IC22	B-3	Z14	D-2	L12	A-3	R111	B-6	C87	B-4
IC26	A-3	Z15	D-2	L34	B-4	R112	B-6	C88	B-4
Q2	B-5	Z16	D-2	L46	B-6	R116	B-5	C89	A-4
Q3	B-5	Z17	D-2	L47	B-6	R201	E-3	C91	A-5
Q5	C-6	Z18	D-2	L48	B-6	R202	B-4	C92	A-2
Q7	B-4	Z19	D-2	L49	B-6	R204	B-2	C95	B-2
Q8	B-4	Z20	C-2	L50	B-6	R211	E-4	C98	B-3
Q9	B-4	Z21	C-2	X1	B-6	C1	B-5	C101	B-4
D19	B-4	Z22	D-4	X2	B-5	C3	B-5	C105	A-3
D20	D-5	Z23	D-4	X3	B-6	C4	B-6	C106	A-3
D32	B-4	Z24	D-4	X4	B-3	C11	C-6	C107	A-3
CN1	A-4	Z25	D-4	R4	B-5	C19	B-6	C108	A-2
CN2	A-2	Z26	D-4	R5	B-5	C20	B-5	C109	A-3
CN3	B-1	Z27	D-3	R7	B-5	C27	B-5	C110	A-3
CN4	D-1	Z28	D-3	R12	A-6	C28	D-6	C116	B-2
CN6	A-6	Z29	D-3	R13	A-6	C29	C-6	C120	A-3
CN8	B-7	Z30	C-3	R14	A-6	C49	D-3	C121	A-3
CN9	C-7	Z31	C-3	R18	C-6	C50	E-3		

A B C D E F

1 2 3 4 5 6 7

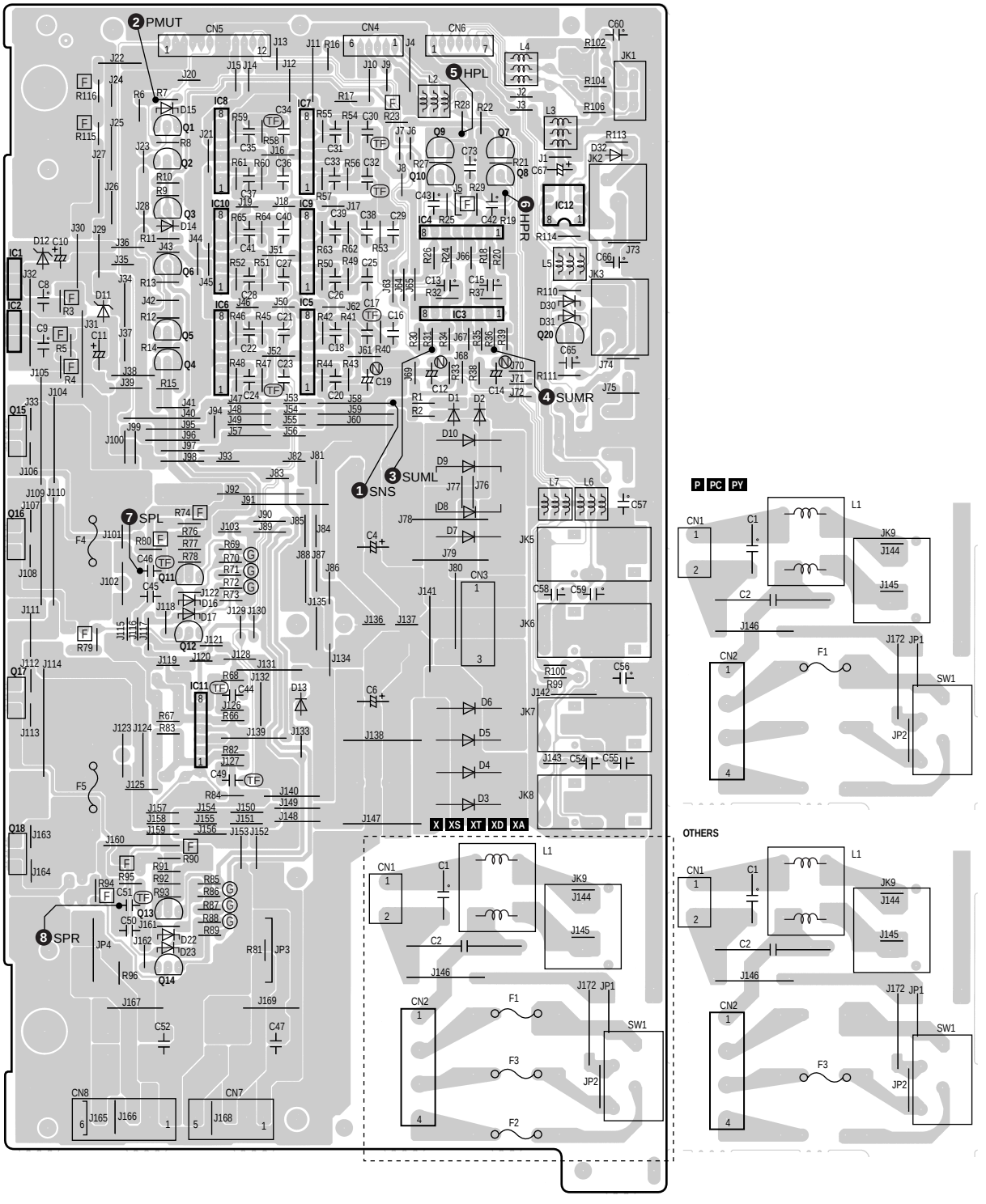
A MAIN P.C.B. (FOIL SIDE)



ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
A MAIN P.C.B. (FOIL SIDE)									
IC3	D-6	L2	D-4	R11	E-6	R61	C-4	C26	D-6
IC4	D-5	L5	D-6	R15	E-6	R62	C-4	C30	C-6
IC5	D-6	L7	D-4	R16	E-6	R65	D-3	C36	C-2
IC14	B-3	L8	E-3	R17	E-6	R66	D-3	C37	C-2
IC15	D-3	L9	E-3	R19	E-6	R75	E-2	C38	C-2
IC20	B-4	L14	A-2	R20	E-6	R76	E-2	C39	C-3
Q1	D-4	L15	A-2	R21	E-6	R87	B-2	C40	B-3
Q6	E-3	L16	A-2	R22	E-6	R92	E-4	C41	C-3
D1	D-5	L17	A-2	R23	E-6	R93	E-4	C42	C-4
D2	D-5	L18	B-2	R24	D-5	R94	E-4	C43	C-4
D3	D-5	L19	B-2	R25	D-6	R96	E-4	C44	C-4
D8	D-6	L20	B-2	R26	D-6	R97	E-4	C45	C-4
D9	D-6	L21	B-2	R29	D-5	R98	E-4	C46	C-4
D10	D-6	L22	B-2	R32	D-6	R103	E-3	C47	C-4
D11	D-6	L23	B-2	R35	E-6	R104	E-3	C48	D-4
D12	C-6	L24	B-2	R36	E-6	R113	E-3	C51	B-2
D13	C-6	L25	B-2	R39	C-7	R114	E-3	C54	D-3
D14	C-6	L26	B-2	R40	C-7	R117	D-6	C55	D-3
D15	E-2	L27	B-2	R41	C-7	R118	D-6	C58	B-4
D16	E-4	L29	D-2	R42	C-7	R200	B-3	C60	D-3
D17	E-4	L30	D-2	R43	C-6	R210	B-4	C63	D-3
D18	E-4	L31	D-2	R47	C-3	C2	D-5	C64	D-3
D21	E-6	L33	D-2	R48	B-3	C6	E-6	C77	A-2
D22	A-2	L35	D-4	R49	B-3	C7	E-6	C83	D-2
D23	A-2	L41	E-6	R50	C-3	C8	E-6	C85	C-2
D24	B-2	L42	E-6	R51	C-3	C9	E-6	C86	C-2
D25	B-2	L43	E-6	R52	B-3	C10	E-6	C90	E-5
D26	B-2	L44	E-6	R53	B-3	C13	E-5	C99	E-3
D27	B-2	L45	E-6	R54	C-3	C14	E-6	C100	D-3
D28	B-2	R2	D-4	R55	C-3	C15	D-5	C111	E-2
D29	B-2	R3	D-4	R56	C-3	C16	C-6	C117	E-3
D31	D-6	R6	D-5	R57	C-2	C17	D-6		
Z34	A-2	R8	D-5	R58	C-5	C23	D-7		
Z35	B-2	R9	D-6	R59	C-5	C24	E-6		
Z36	B-2	R10	E-6	R60	C-4	C25	E-6		

B FJASP P.C.B.


A
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2 PMUT
5 HPL
9 HPR
4 SUMR
3 SUML
1 SNS
7 SPL
8 SPR
CN5
CN4
CN6
IC1
IC2
IC3
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IC5
IC6
IC7
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F3
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F5
P PC PY
OTHERS
X XS XT XD XA
CN1
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L1
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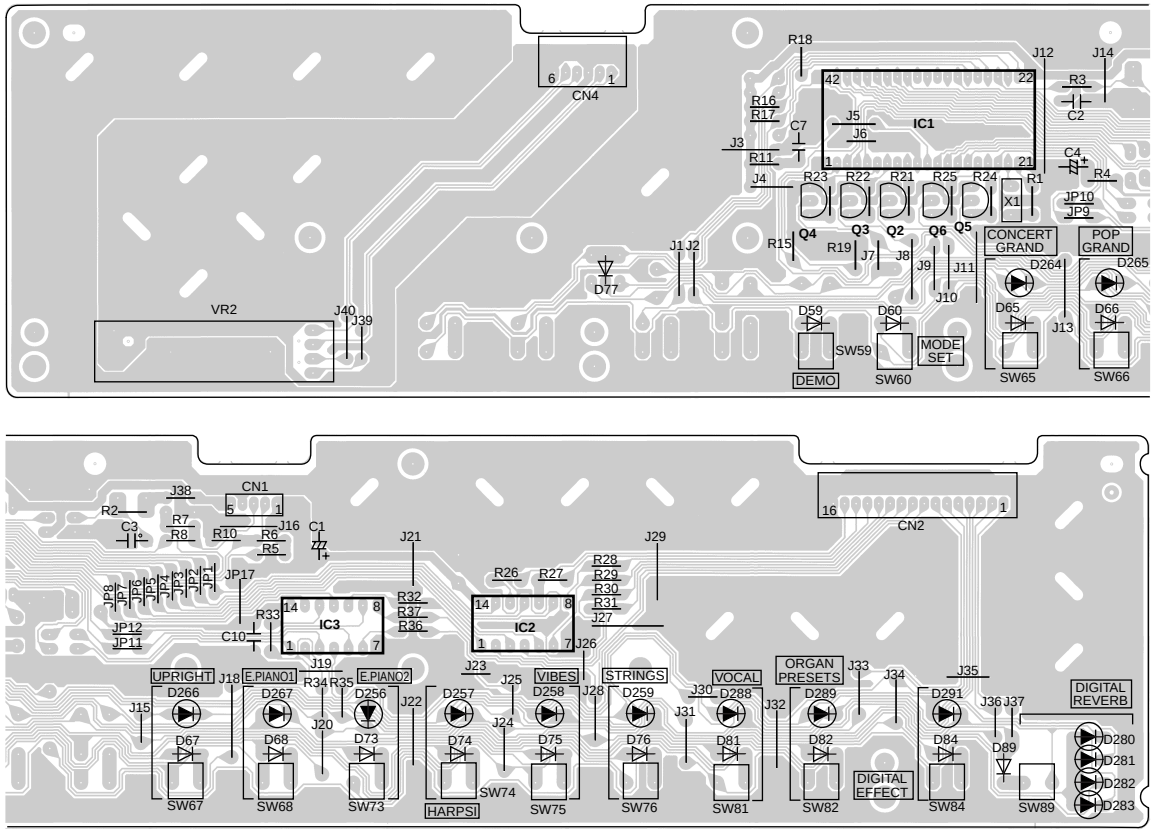
L6
L7
C1
C2
J144
J145
J146
J172

ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
B FJASP P.C.B.									
IC1	A-3	D31	D-3	R35	C-3	R87	B-6	C34	B-2
IC2	A-3	D32	D-2	R36	C-3	R88	B-6	C35	B-2
IC3	C-3	CN1	C-6	R37	C-3	R89	B-6	C36	B-2
IC4	C-2	CN2	C-7	R38	C-3	R90	B-6	C37	B-2
IC5	B-3	CN3	C-4	R39	C-3	R91	B-6	C38	C-2
IC6	B-3	CN4	C-1	R40	C-3	R92	B-6	C39	C-2
IC7	B-2	CN5	B-1	R41	C-3	R93	B-6	C40	B-2
IC8	B-2	CN6	C-1	R42	C-3	R94	A-6	C41	B-2
IC9	B-2	CN7	B-7	R43	C-3	R95	A-6	C42	C-2
IC10	B-2	CN8	B-7	R44	C-3	R96	A-6	C43	C-2
IC11	B-5	L1	C-6	R45	B-3	R99	D-5	C44	B-5
IC12	D-2	L2	C-2	R46	B-3	R100	D-5	C45	B-4
Q1	B-2	L3	D-2	R47	B-3	R102	D-1	C46	B-4
Q2	B-2	L4	D-1	R48	B-3	R104	D-2	C47	B-7
Q3	B-2	L5	D-2	R49	C-3	R106	D-2	C49	B-5
Q4	B-3	L6	D-4	R50	C-3	R110	D-3	C50	A-6
Q5	B-3	L7	D-4	R51	B-3	R111	D-3	C51	A-6
Q6	B-3	R1	C-3	R52	B-3	R113	D-2	C52	B-7
Q7	C-2	R2	C-3	R53	C-2	R114	D-2	C54	D-5
Q8	C-2	R3	A-3	R54	C-2	R115	A-2	C55	D-5
Q9	C-2	R4	A-3	R55	C-2	R116	A-2	C56	D-5
Q10	C-2	R5	A-3	R56	C-2	C1	C-6	C57	D-4
Q11	B-4	R6	B-2	R57	C-2	C2	C-6	C58	D-4
Q12	B-5	R7	B-2	R58	B-2	C4	C-4	C59	D-4
Q13	B-6	R8	B-2	R59	B-2	C6	C-5	C60	D-1
Q14	B-6	R9	B-2	R60	B-2	C8	A-3	C65	D-3
Q15	A-3	R10	B-2	R61	B-2	C9	A-3	C66	D-2
Q16	A-4	R11	B-2	R62	C-2	C10	A-2	C67	D-2
Q17	A-5	R12	B-3	R63	C-2	C11	A-3	C73	C-2
Q18	A-6	R13	B-3	R64	B-2	C12	C-3	F1	D-7
Q20	D-3	R14	B-3	R65	B-2	C13	C-3	F2	D-7
D1	C-3	R15	B-3	R66	B-5	C14	C-3	F3	D-7
D2	C-3	R16	C-1	R67	B-5	C15	C-3	F4	A-4
D3	C-5	R17	C-2	R68	B-5	C16	C-3	F5	A-5
D4	C-5	R18	C-2	R69	B-4	C17	C-3	JK1	D-2
D5	C-5	R19	C-2	R70	B-4	C18	C-3	JK2	D-2
D6	C-5	R20	C-2	R71	B-4	C19	C-3	JK3	D-3
D7	C-4	R21	C-2	R72	B-4	C20	C-3	JK5	D-4
D8	C-4	R22	C-2	R73	B-4	C21	B-3	JK6	D-5
D9	C-4	R23	C-2	R74	B-4	C22	B-3	JK7	D-5
D10	C-4	R24	C-2	R76	B-4	C23	B-3	JK8	D-5
D11	A-3	R25	C-2	R77	B-4	C24	B-3	JK9	D-6
D12	A-2	R26	C-2	R78	B-4	C25	C-3	JP1	D-7
D13	B-5	R27	C-2	R79	A-5	C26	C-3	JP2	D-7
D14	B-2	R28	C-2	R80	B-4	C27	B-3	JP3	B-6
D15	B-2	R29	C-2	R81	B-6	C28	B-3	JP4	A-6
D16	B-4	R30	C-3	R82	B-5	C29	C-2	SW1	D-7
D17	B-4	R31	C-3	R83	B-5	C30	C-2		
D22	B-6	R32	C-3	R84	B-5	C31	C-2		
D23	B-6	R33	C-3	R85	B-6	C32	C-2		
D30	D-3	R34	C-3	R86	B-6	C33	C-2		

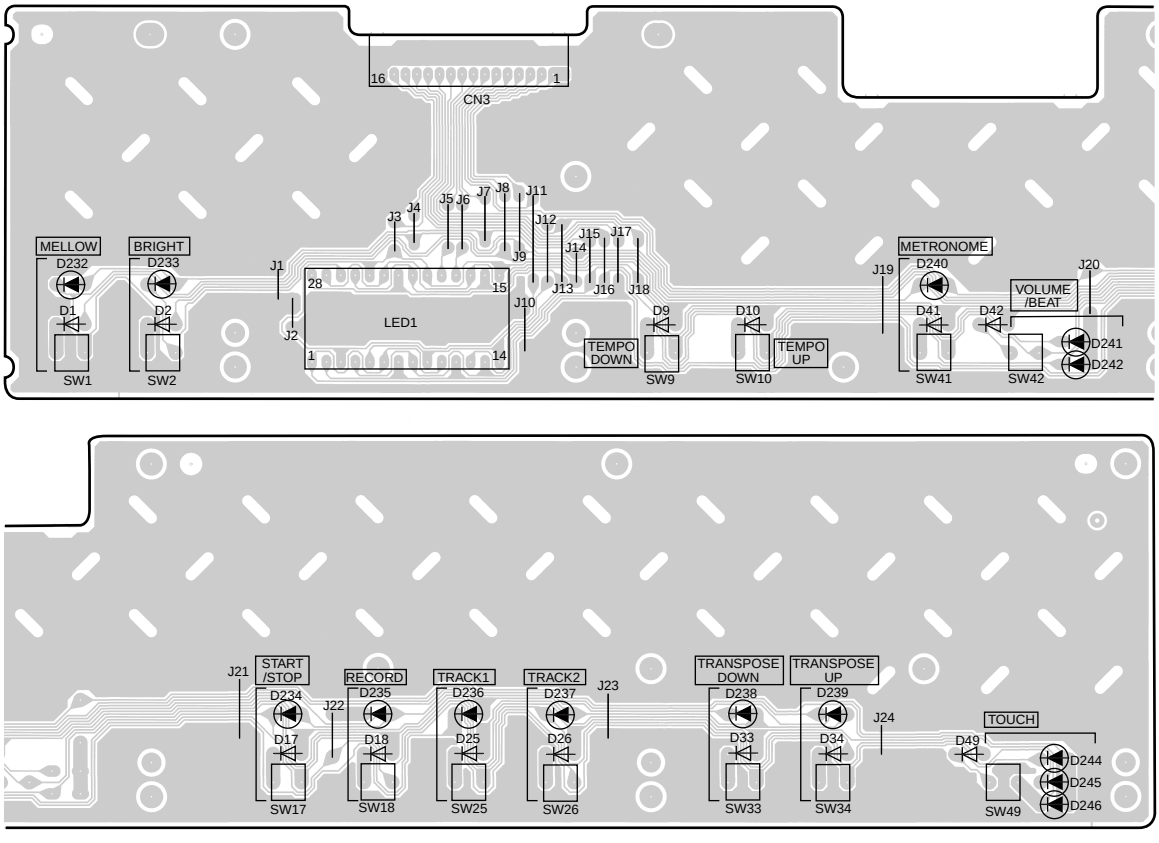
C CPL P.C.B.



ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
C CPL P.C.B.									
IC1	E-2	D81	D-4	CN1	B-3	R21	E-2	C3	A-4
IC2	C-4	D82	D-4	CN2	E-3	R22	E-2	C4	E-2
IC3	B-4	D84	E-4	CN4	C-2	R23	D-2	C7	D-2
Q2	E-2	D89	E-4	X1	E-2	R24	E-2	C10	B-4
Q3	E-2	D256	B-4	R1	E-2	R25	E-2	SW59	D-3
Q4	D-2	D257	C-4	R2	A-3	R26	C-4	SW60	E-3
Q5	E-2	D258	C-4	R3	F-2	R27	C-4	SW65	E-3
Q6	E-2	D259	D-4	R4	F-2	R28	C-4	SW66	F-3
D59	D-3	D264	E-2	R5	B-4	R29	C-4	SW67	B-5
D60	E-3	D265	F-2	R6	B-4	R30	C-4	SW68	B-5
D65	E-3	D266	B-4	R7	B-3	R31	C-4	SW73	B-5
D66	F-3	D267	B-4	R8	B-4	R32	C-4	SW74	C-5
D67	B-4	D280	F-4	R10	B-4	R33	B-4	SW75	C-5
D68	B-4	D281	F-5	R11	D-2	R34	B-4	SW76	D-5
D73	B-4	D282	F-5	R15	D-2	R35	B-4	SW81	D-5
D74	C-4	D283	F-5	R16	D-2	R36	C-4	SW82	D-5
D75	C-4	D288	D-4	R17	D-2	R37	C-4	SW84	E-5
D76	D-4	D289	D-4	R18	D-1	C1	B-4	SW89	E-5
D77	C-2	D291	E-4	R19	D-2	C2	F-2	VR2	B-3

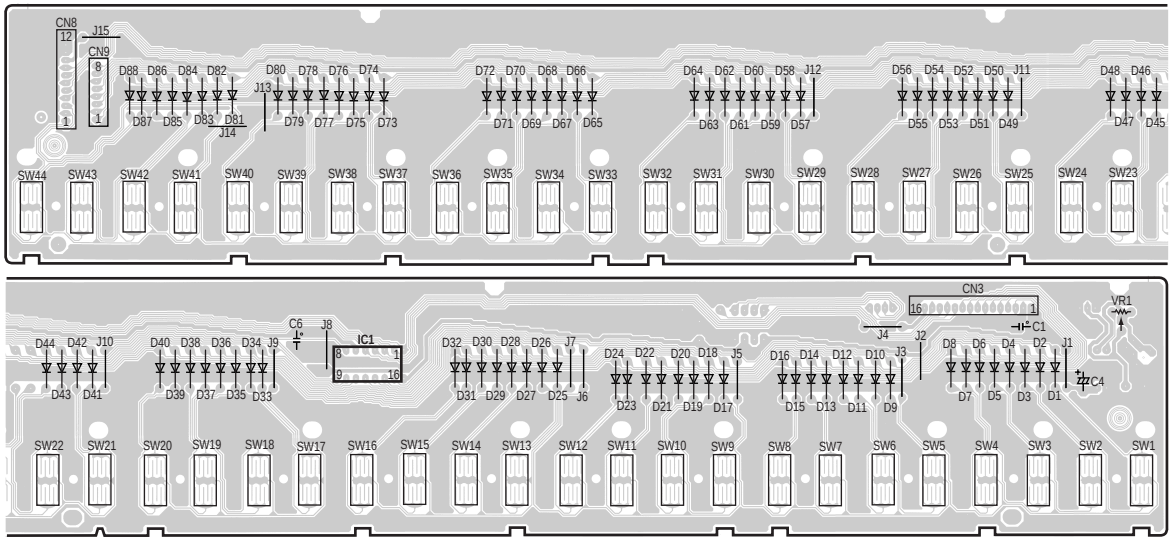
D CPR P.C.B.



ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
D CPR P.C.B.									
D1	A-3	D34	D-4	D237	C-4	CN3	C-2	SW33	D-5
D2	A-3	D41	E-3	D238	D-4	SW1	A-3	SW34	D-5
D9	D-3	D42	E-3	D239	D-4	SW2	A-3	SW41	E-3
D10	D-3	D49	E-4	D240	E-2	SW9	D-3	SW42	E-3
D17	B-4	D232	A-2	D241	F-3	SW10	D-3	SW49	E-5
D18	B-4	D233	A-2	D242	F-3	SW17	B-5	LED1	B-3
D25	C-4	D234	B-4	D244	E-5	SW18	B-5		
D26	C-4	D235	B-4	D245	E-5	SW25	C-5		
D33	D-4	D236	C-4	D246	E-5	SW26	C-5		

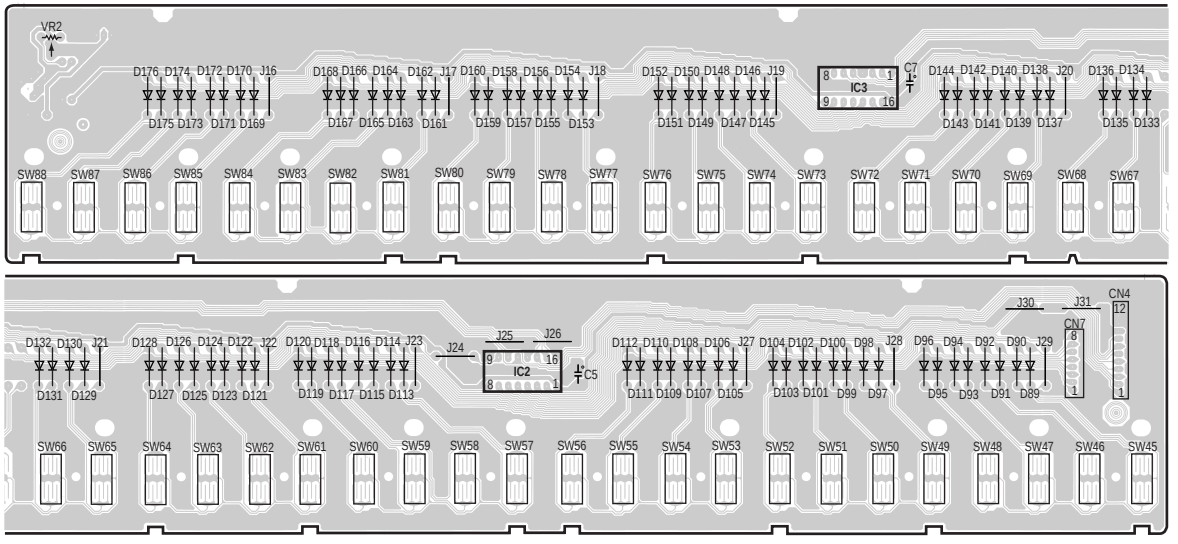
E MKB1 P.C.B.



ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
E MKB1 P.C.B.									
IC1	B-3	D28	C-3	D56	E-1	D84	B-1	SW18	B-3
D1	E-3	D29	C-3	D57	D-2	D85	A-2	SW19	B-3
D2	E-3	D30	C-3	D58	D-1	D86	A-1	SW20	A-3
D3	E-3	D31	C-3	D59	D-2	D87	A-2	SW21	A-3
D4	E-3	D32	C-3	D60	D-1	D88	A-1	SW22	A-3
D5	E-3	D33	B-3	D61	D-2	CN3	E-2	SW23	F-2
D6	E-3	D34	B-3	D62	D-1	CN8	A-1	SW24	E-2
D7	E-3	D35	B-3	D63	D-2	CN9	A-1	SW25	E-2
D8	E-3	D36	B-3	D64	D-1	C1	E-3	SW26	E-2
D9	E-3	D37	B-3	D65	C-2	C4	F-3	SW27	E-2
D10	E-3	D38	B-3	D66	C-1	C6	B-3	SW28	E-2
D11	E-3	D39	B-3	D67	C-2	SW1	F-3	SW29	D-2
D12	D-3	D40	A-3	D68	C-1	SW2	F-3	SW30	D-2
D13	D-3	D41	A-3	D69	C-2	SW3	E-3	SW31	D-2
D14	D-3	D42	A-3	D70	C-1	SW4	E-3	SW32	D-2
D15	D-3	D43	A-3	D71	C-2	SW5	E-3	SW33	C-2
D16	D-3	D44	A-3	D72	C-1	SW6	E-3	SW34	C-2
D17	D-3	D45	F-2	D73	B-2	SW7	D-3	SW35	C-2
D18	D-3	D46	F-1	D74	B-1	SW8	D-3	SW36	C-2
D19	D-3	D47	F-2	D75	B-2	SW9	D-3	SW37	B-2
D20	D-3	D48	F-1	D76	B-1	SW10	D-3	SW38	B-2
D21	D-3	D49	E-2	D77	B-2	SW11	C-3	SW39	B-2
D22	D-3	D50	E-1	D78	B-1	SW12	C-3	SW40	B-2
D23	D-3	D51	E-2	D79	B-2	SW13	C-3	SW41	B-2
D24	C-3	D52	E-1	D80	B-1	SW14	C-3	SW42	A-2
D25	C-3	D53	E-2	D81	B-2	SW15	C-3	SW43	A-2
D26	C-3	D54	E-1	D82	B-1	SW16	B-3	SW44	A-2
D27	C-3	D55	E-2	D83	B-2	SW17	B-3	VR1	F-2

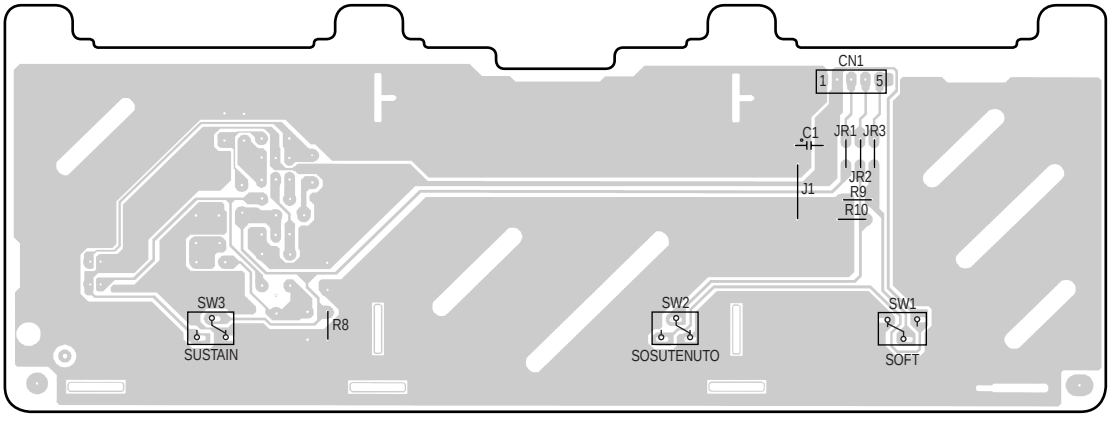
F MKB2 P.C.B.



ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
F MKB2 P.C.B.									
IC2	C-3	D115	B-3	D143	E-2	D171	B-2	SW63	B-3
IC3	E-2	D116	B-3	D144	E-1	D172	B-1	SW64	A-3
D89	E-3	D117	B-3	D145	D-2	D173	B-2	SW65	A-3
D90	E-3	D118	B-3	D146	D-1	D174	B-1	SW66	A-3
D91	E-3	D119	B-3	D147	D-2	D175	A-2	SW67	F-2
D92	E-3	D120	B-3	D148	D-1	D176	A-1	SW68	E-2
D93	E-3	D121	B-3	D149	D-2	CN4	F-2	SW69	E-2
D94	E-3	D122	B-3	D150	D-1	CN7	E-3	SW70	E-2
D95	E-3	D123	B-3	D151	D-2	C5	C-3	SW71	E-2
D96	E-3	D124	B-3	D152	D-1	C7	E-1	SW72	E-2
D97	E-3	D125	B-3	D153	C-2	SW45	F-3	SW73	D-2
D98	E-3	D126	B-3	D154	C-1	SW46	F-3	SW74	D-2
D99	D-3	D127	A-3	D155	C-2	SW47	E-3	SW75	D-2
D100	D-3	D128	A-3	D156	C-1	SW48	E-3	SW76	D-2
D101	D-3	D129	A-3	D157	C-2	SW49	E-3	SW77	C-2
D102	D-3	D130	A-3	D158	C-1	SW50	E-3	SW78	C-2
D103	D-3	D131	A-3	D159	C-2	SW51	D-3	SW79	C-2
D104	D-3	D132	A-3	D160	C-1	SW52	D-3	SW80	C-2
D105	D-3	D133	F-2	D161	C-2	SW53	D-3	SW81	B-2
D106	D-3	D134	F-1	D162	C-1	SW54	D-3	SW82	B-2
D107	D-3	D135	F-2	D163	C-2	SW55	D-3	SW83	B-2
D108	D-3	D136	F-1	D164	B-1	SW56	C-3	SW84	B-2
D109	D-3	D137	E-2	D165	B-2	SW57	C-3	SW85	B-2
D110	D-3	D138	E-1	D166	B-1	SW58	C-3	SW86	A-2
D111	D-3	D139	E-2	D167	B-2	SW59	C-3	SW87	A-2
D112	D-3	D140	E-1	D168	B-1	SW60	B-3	SW88	A-2
D113	C-3	D141	E-2	D169	B-2	SW61	B-3	VR2	A-1
D114	B-3	D142	E-1	D170	B-1	SW62	B-3		

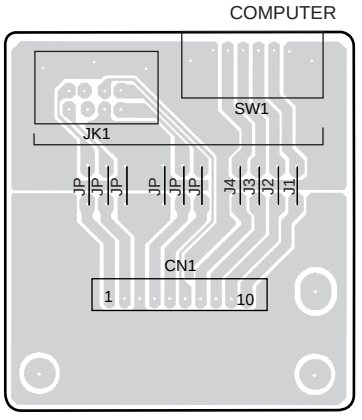
G PKB P.C.B.



ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
G PKB P.C.B.							
CN1	D-1	R10	E-2	SW2	D-3	JR2	E-2
R8	B-3	C1	D-2	SW3	B-3	JR3	E-2
R9	E-2	SW1	E-3	JR1	D-2		

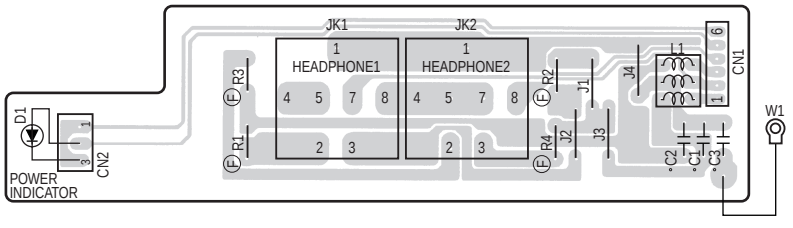
H COM P.C.B.



ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
H COM P.C.B.					
CN1	B-2	JK1	A-2	SW1	B-2

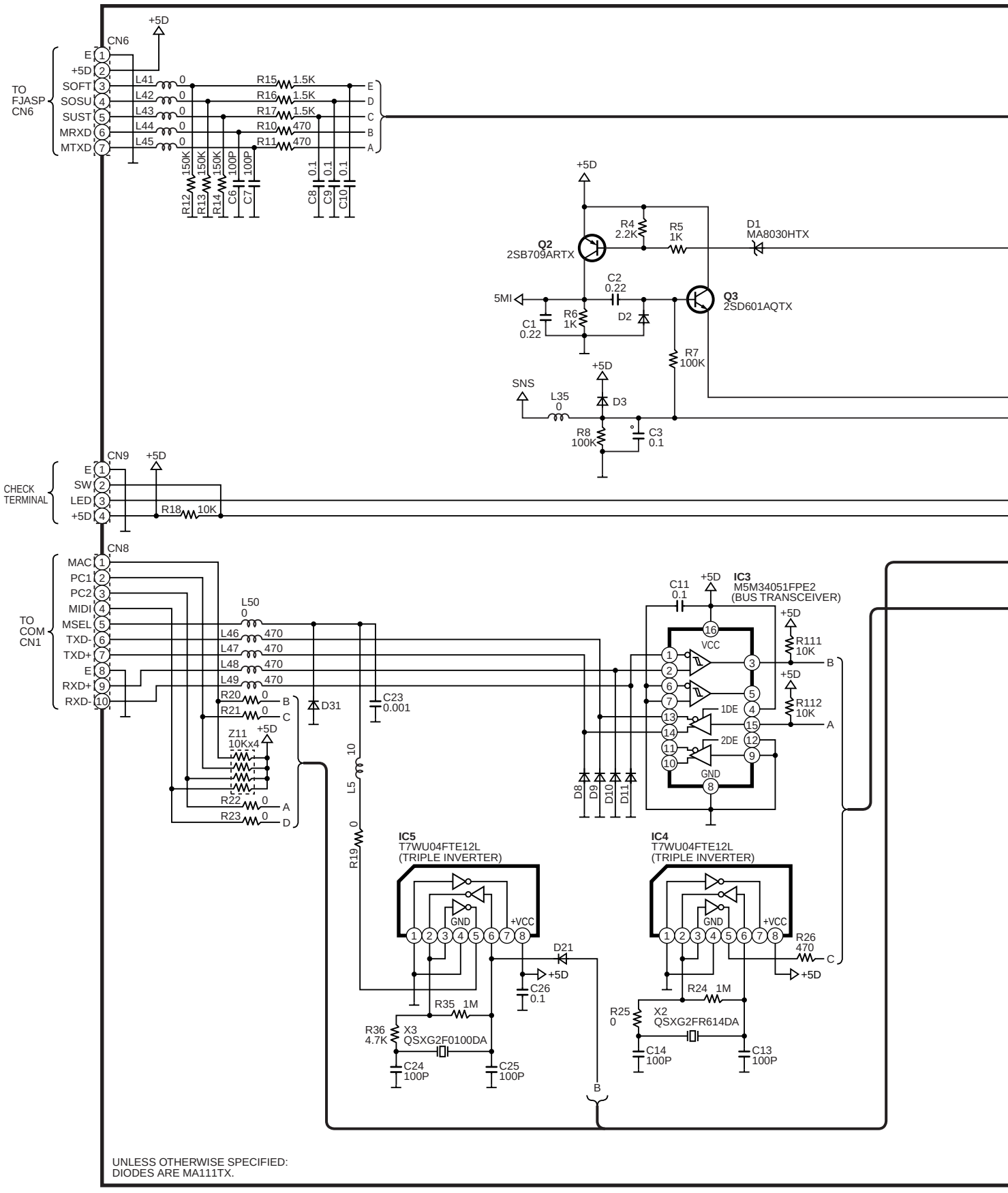
I HP P.C.B.



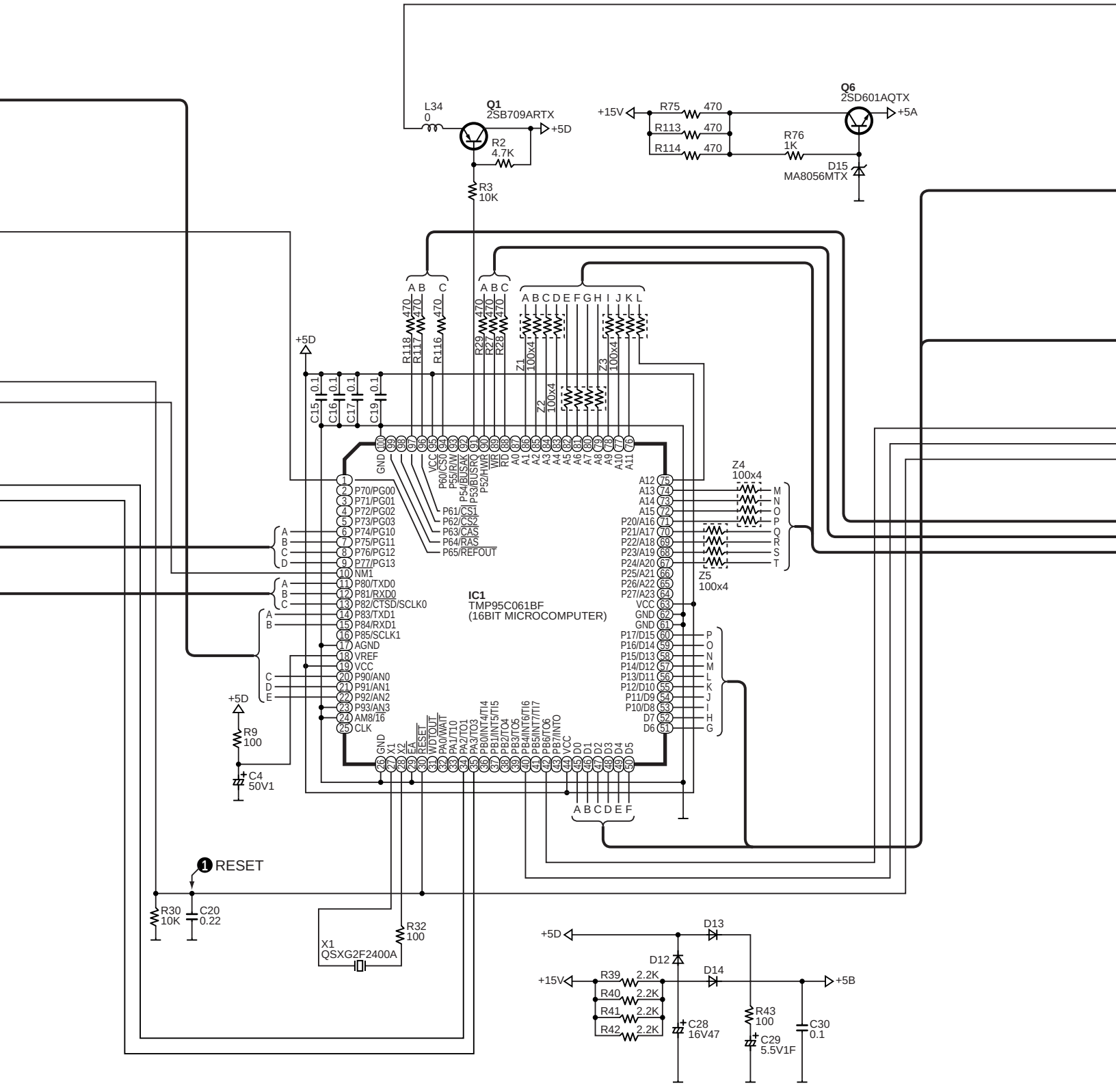
ELECTRICAL PARTS LOCATION

Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.	Ref.No.	Lo.No.
I HP P.C.B.									
D1	A-4	L1	D-4	R3	B-4	C2	D-5	JK2	C-4
CN1	D-4	R1	B-4	R4	C-4	C3	D-5	W1	D-4
CN2	A-5	R2	C-4	C1	D-5	JK1	B-4		

A MAIN CIRCUIT



UNLESS OTHERWISE SPECIFIED:
DIODES ARE MA111TX.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470
Q6
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+5A
R76
1K
D15
MA8056MTX
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R118 470
R117 470
R116 470
A B C
R29 470
R27 470
R28 470
A B C D E F G H I J K L
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Z2 100x4
Z3 100x4
+5D
C15 0.1
C16 0.1
C17 0.1
C19 0.1
GND
VCC
P80/CS0
P55/R/W
P54/BUSAK
P53/BUSRQ
P52/HWR
WR
RD
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11
A12 A13 A14 A15 P20/A16 P21/A17 P22/A18 P23/A19 P24/A20 P25/A21 P26/A22 P27/A23
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100x4
Z5
100x4
M N O P Q R S T
P70/PG00
P71/PG01
P72/PG02
P73/PG03
P74/PG10
P75/PG11
P76/PG12
P77/PG13
NM1
P80/TXD0
P81/RXD0
P82/CTSD/SCLK0
P83/TXD1
P84/RXD1
P85/SCLK1
AGND
VREF
VCC
P90/AN0
P91/AN1
P92/AN2
P93/AN3
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P64/RAS
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C D E
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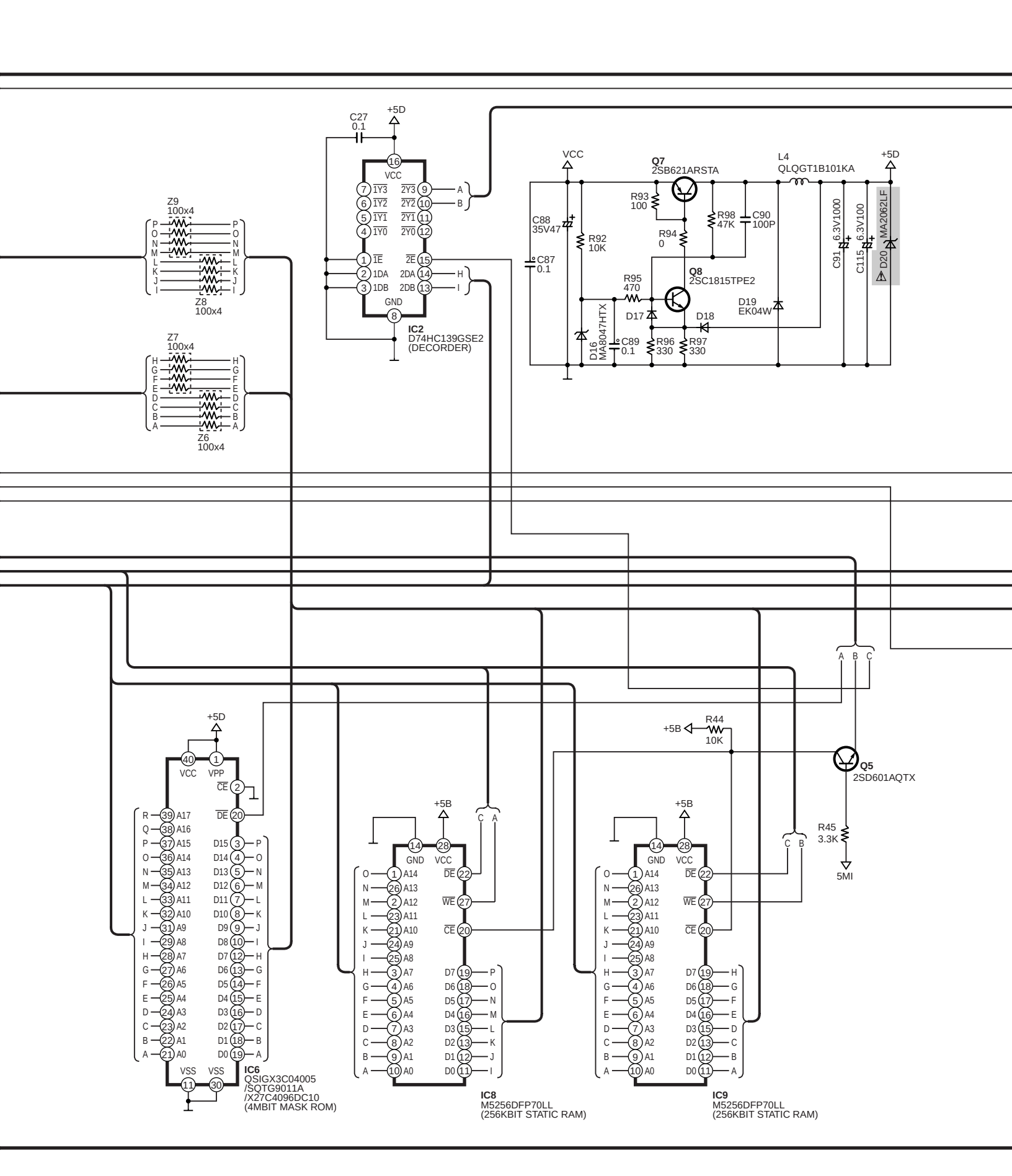
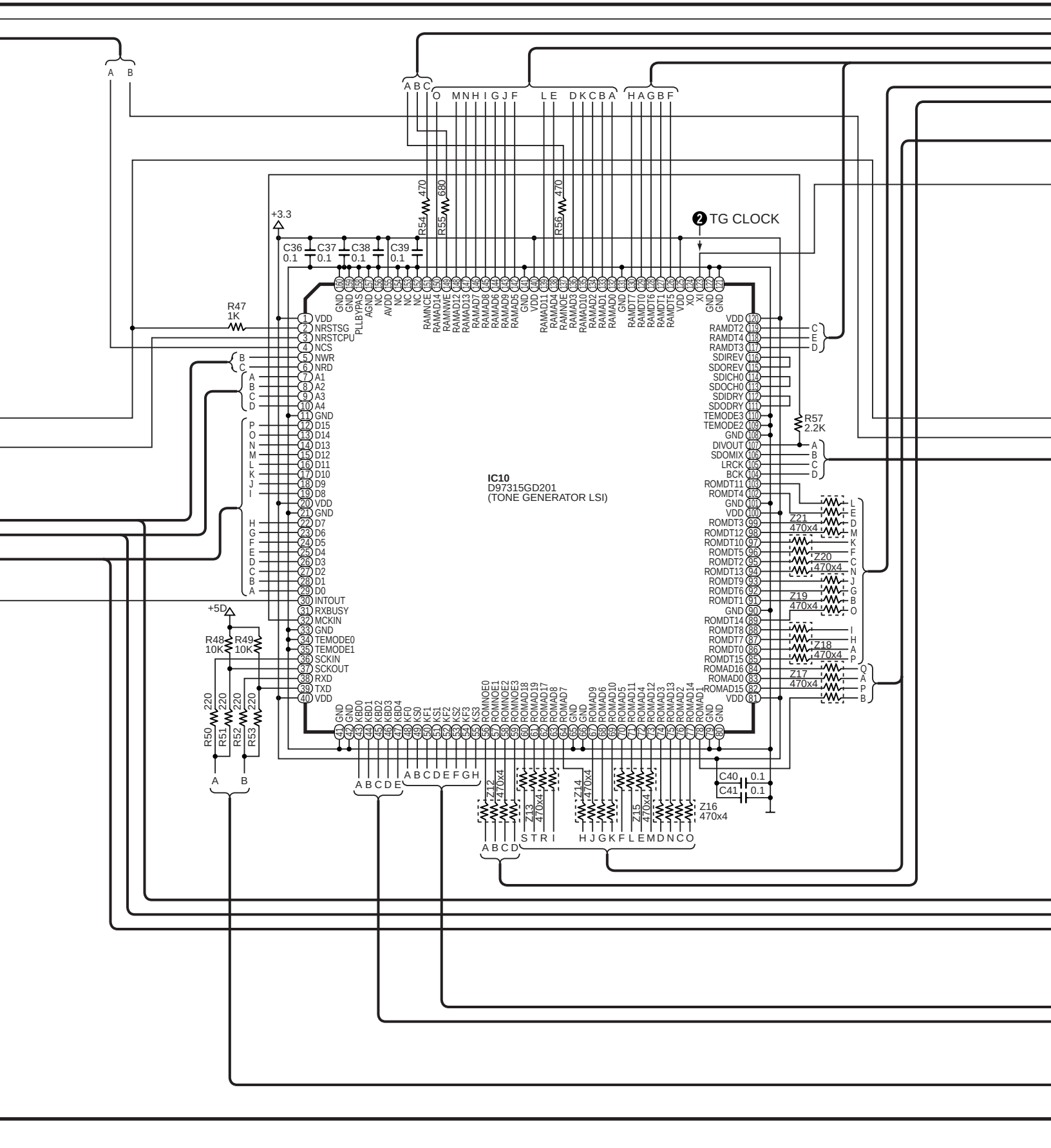
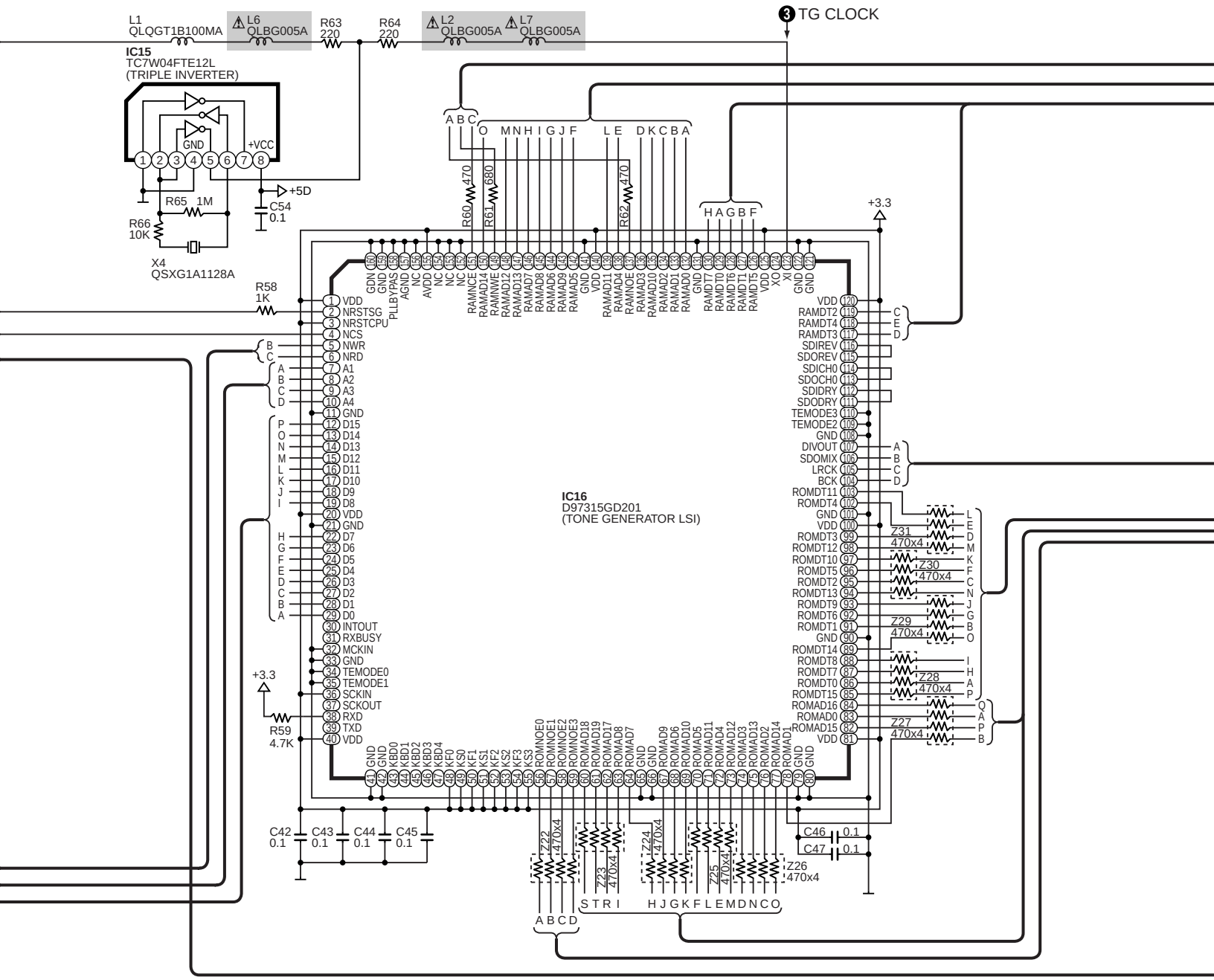
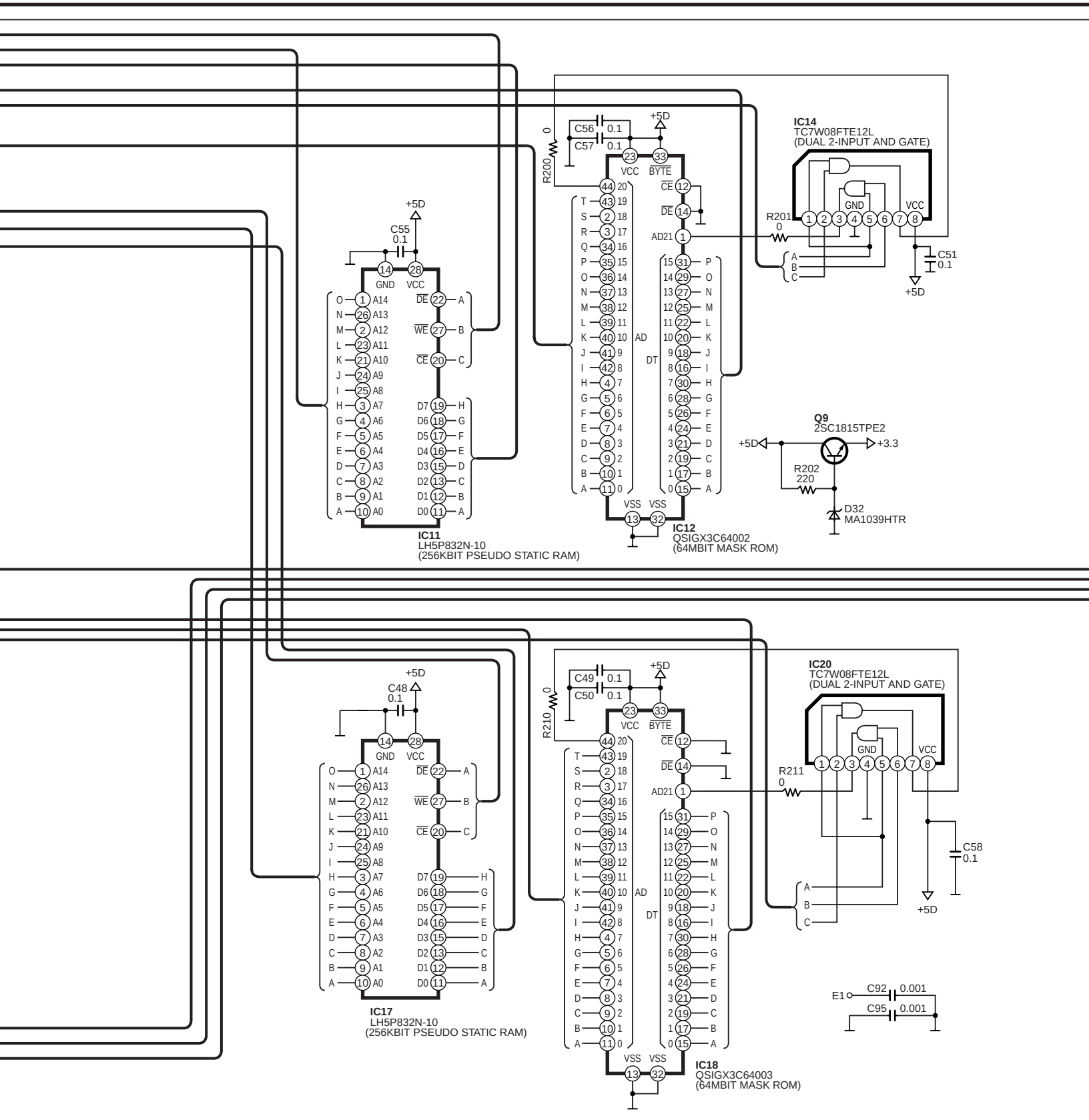
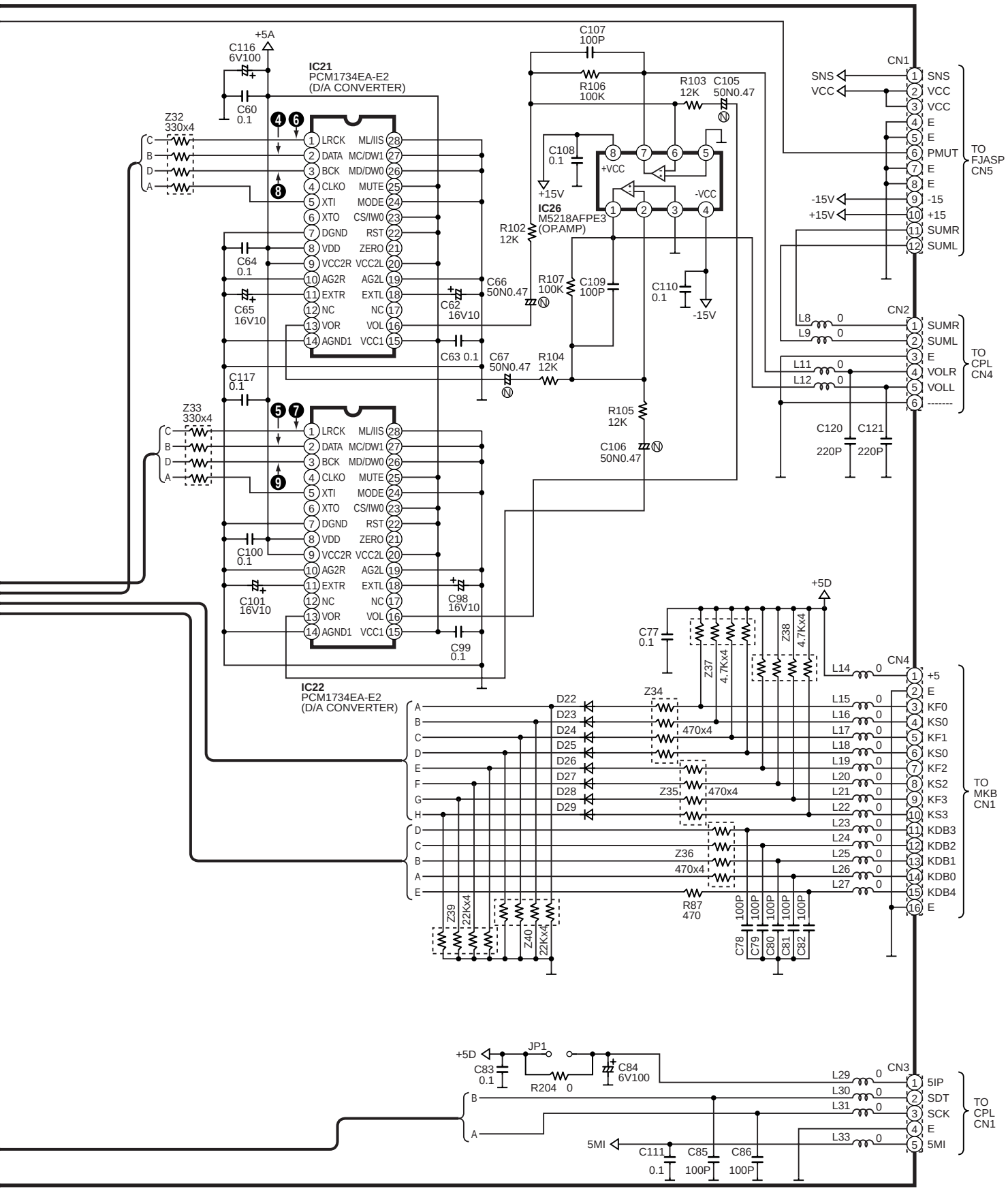
VCC
GND
GND
P17/D15
P16/D14
P15/D13
P14/D12
P13/D11
P12/D10
P11/D9
P10/D8
D7
D6
P O N M L K J I H G
+5D
R9
100
C4
50V1
GND X1 X2 EA RESET WDTOUT PA0/WAIT PA1/T10 PA2/TO1 PA3/TO3 PB0/INT4/TI4 PB1/INT5/TI5 PB2/TO4 PB3/TO5 PB4/INT6/TI6 PB5/INT7/TI7 PB6/TO6 PB7/INTO VCC D0 D1 D2 D3 D4 D5
A B C D E F
1 RESET
R30
10K
C20
0.22
X1
QSXG2F2400A
R32
100
+5D
D13
D12
D14
+15V
R39 2.2K
R40 2.2K
R41 2.2K
R42 2.2K
+5B
C28
16V47
R43
100
C29
5.5V1F
C30
0.1


C27
0.1
+5D
VCC
A
B
IC2
D74HC139GSE2
(DECORDER)
GND
Z9
100x4
Z8
100x4
Z7
100x4
Z6
100x4
VCC
Q7
2SB621ARSTA
L4
QLQGT1B101KA
+5D
R93
100
R98
47K
C90
100P
C88
35V47
R92
10K
R94
0
C87
0.1
C91
6.3V1000
C115
6.3V100
D20
MA2062LF
Q8
2SC1815TPE2
R95
470
D19
EK04W
D17
D18
D16
MA8047HTX
C89
0.1
R96
330
R97
330
A B C
+5D
R44
+5B
10K
Q5
2SD601AQTX
R45
3.3K
5MI
IC6
QSIGX3C04005
/SQTG9011A
/X27C4096DC10
(4MBIT MASK ROM)
IC8
M5256DFP70LL
(256KBIT STATIC RAM)
IC9
M5256DFP70LL
(256KBIT STATIC RAM)


IC10
D97315GD201
(TONE GENERATOR LSI)
+3.3
+5D
2 TG CLOCK
C36 0.1
C37 0.1
C38 0.1
C39 0.1
C40 0.1
C41 0.1
R47 1K
R48 10K
R49 10K
R50 220
R51 220
R52 220
R53 220
R54 470
R55 680
R56 470
R57 2.2K
Z12 470x4
Z13 470x4
Z14 470x4
Z15 470x4
Z16 470x4
Z17 470x4
Z18 470x4
Z19 470x4
Z20 470x4
Z21 470x4
1 VDD
2 NRSTSG
3 NRSTCPU
4 NCS
5 NWR
6 NRD
7 A1
8 A2
9 A3
10 A4
11 GND
12 D15
13 D14
14 D13
15 D12
16 D11
17 D10
18 D9
19 D8
20 VDD
21 GND
22 D7
23 D6
24 D5
25 D4
26 D3
27 D2
28 D1
29 D0
30 INTOUT
31 RXBUSY
32 MCKIN
33 GND
34 TEMODE0
35 TEMODE1
36 SCKIN
37 SCKOUT
38 RXD
39 TXD
40 VDD
120 VDD
119 RAMDT2
118 RAMDT4
117 RAMDT3
116 SDIREV
115 SDOREV
114 SDICH0
113 SDOCH0
112 SDIDRY
111 SDODRY
110 TEMODE3
109 TEMODE2
108 GND
107 DIVOUT
106 SDOMIX
105 LRCK
104 BCK
103 ROMDT11
102 ROMDT4
101 GND
100 VDD
99 ROMDT3
98 ROMDT12
97 ROMDT10
96 ROMDT5
95 ROMDT2
94 ROMDT13
93 ROMDT9
92 ROMDT6
91 ROMDT1
90 GND
89 ROMDT14
88 ROMDT8
87 ROMDT7
86 ROMDT0
85 ROMDT15
84 ROMAD16
83 ROMAD0
82 ROMAD15
81 VDD

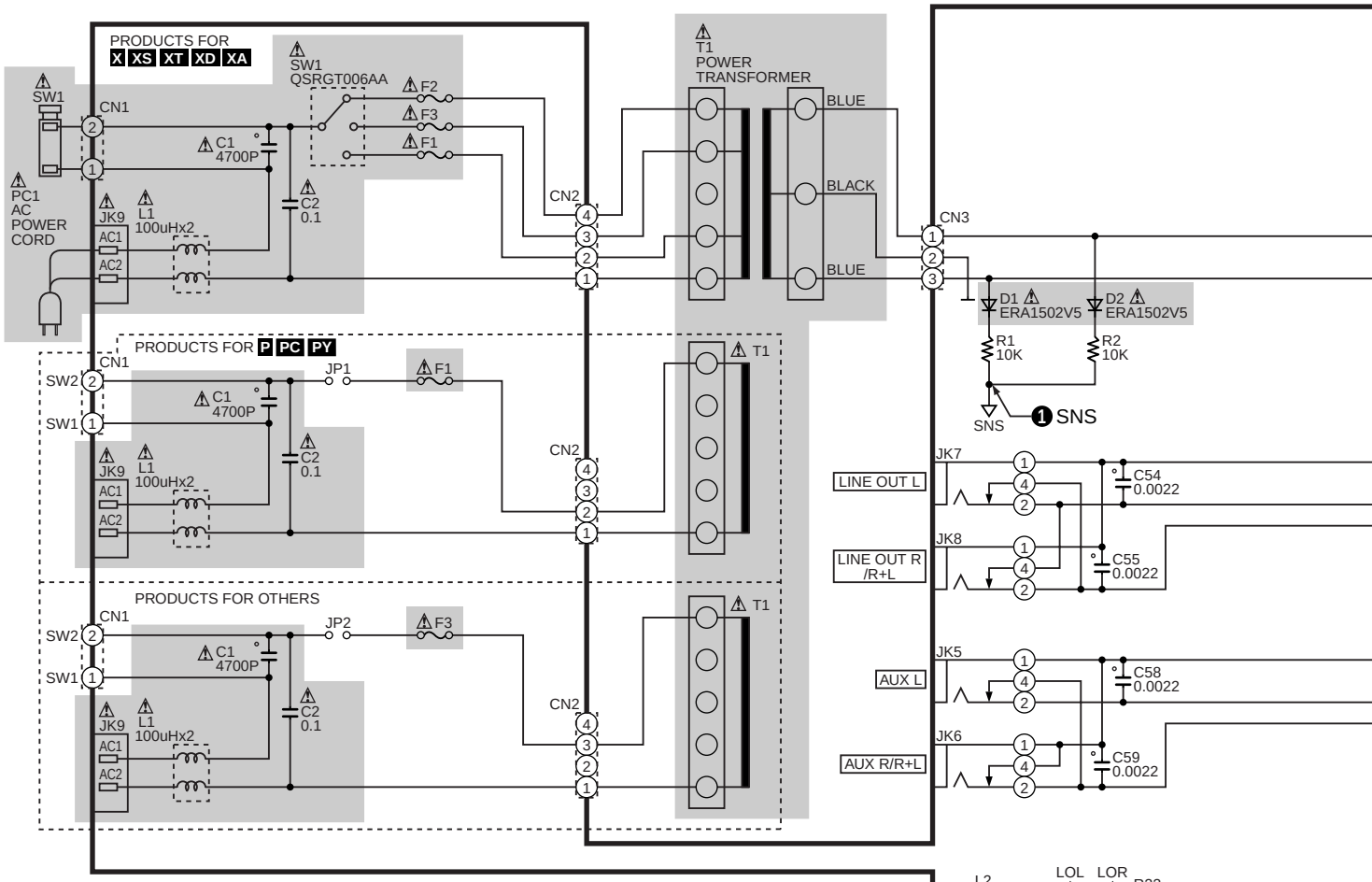

3 TG CLOCK
L1
QLQGT1B100MA
L6
QLBG005A
R63
220
R64
220
L2
QLBG005A
L7
QLBG005A
IC15
TC7W04FTE12L
(TRIPLE INVERTER)
GND
+VCC
+5D
R65 1M
R66
10K
C54
0.1
X4
QSXG1A1128A
R58
1K
R59
4.7K
+3.3
R60 470
R61 680
R62 470
IC16
D97315GD201
(TONE GENERATOR LSI)
C42 0.1
C43 0.1
C44 0.1
C45 0.1
C46 0.1
C47 0.1
Z22 470x4
Z23 470x4
Z24 470x4
Z25 470x4
Z26 470x4
Z27 470x4
Z28 470x4
Z29 470x4
Z30 470x4
Z31 470x4


IC14
TC7W08FTE12L
(DUAL 2-INPUT AND GATE)
GND
VCC
R201
0
C51
0.1
+5D
A
B
C
R200
0
C56
0.1
C57
0.1
+5D
VCC
BYTE
CE
DE
AD21
AD
DT
VSS
VSS
IC12
QSIGX3C64002
(64MBIT MASK ROM)
C55
0.1
+5D
GND
VCC
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
WE
D7
D6
D5
D4
D3
D2
D1
D0
IC11
LH5P832N-10
(256KBIT PSEUDO STATIC RAM)
Q9
2SC1815TPE2
+5D
+3.3
R202
220
D32
MA1039HTR
IC20
TC7W08FTE12L
(DUAL 2-INPUT AND GATE)
GND
VCC
R211
0
C58
0.1
+5D
A
B
C
R210
0
C49
0.1
C50
0.1
+5D
VCC
BYTE
CE
DE
AD21
AD
DT
VSS
VSS
IC18
QSIGX3C64003
(64MBIT MASK ROM)
C48
0.1
+5D
GND
VCC
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
WE
D7
D6
D5
D4
D3
D2
D1
D0
IC17
LH5P832N-10
(256KBIT PSEUDO STATIC RAM)
E1
C92
0.001
C95
0.001

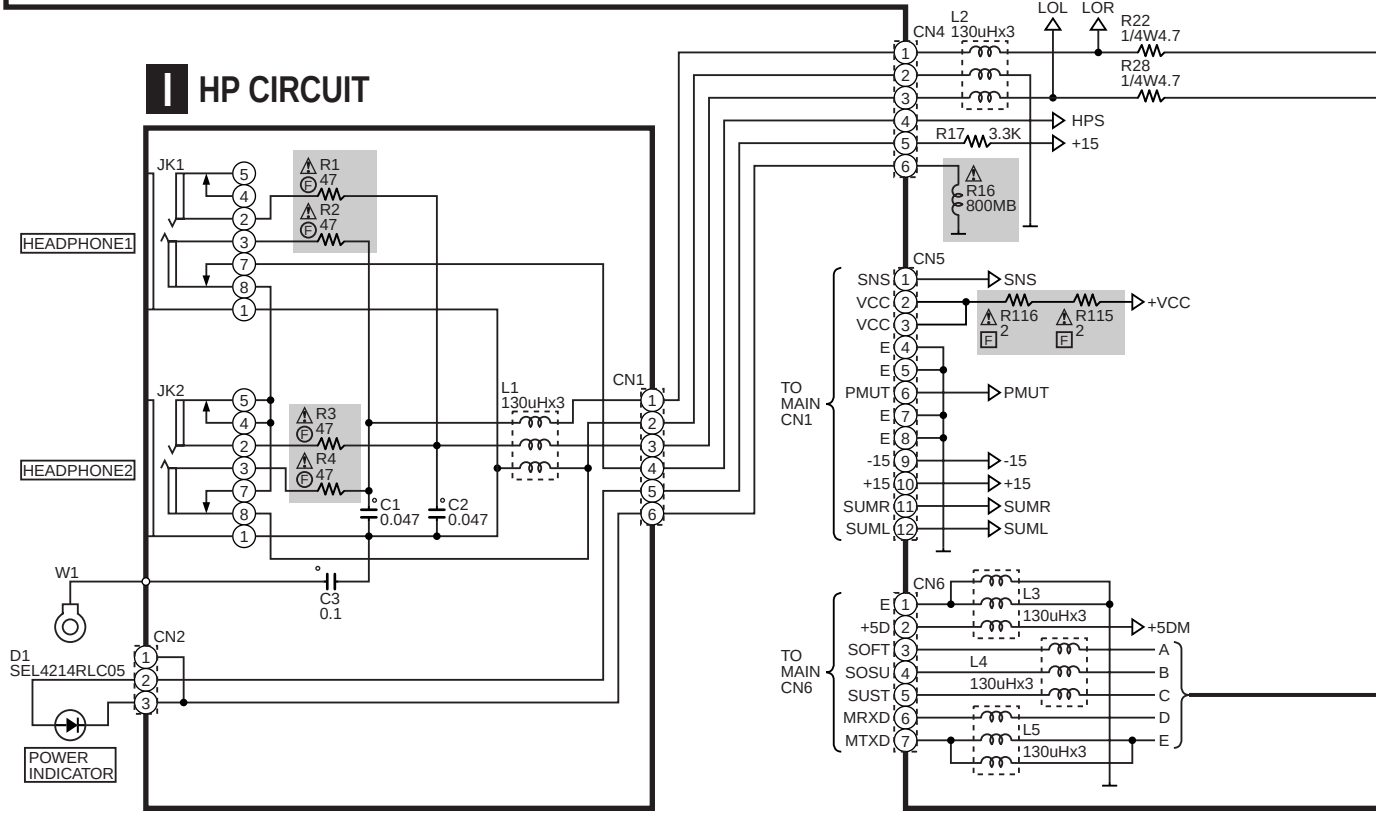

IC21
PCM1734EA-E2
(D/A CONVERTER)
IC22
PCM1734EA-E2
(D/A CONVERTER)
IC26
M5218AFPE3
(OP.AMP)
+5A
+5D
+15V
-15V
+VCC
-VCC
C116 6V100
C60 0.1
C107 100P
R106 100K
R103 12K
C105 50N0.47
C108 0.1
R102 12K
C64 0.1
C65 16V10
C66 50N0.47
C62 16V10
R107 100K
C109 100P
C110 0.1
C63 0.1
C67 50N0.47
R104 12K
R105 12K
C106 50N0.47
C117 0.1
C100 0.1
C101 16V10
C98 16V10
C99 0.1
C77 0.1
C83 0.1
C84 6V100
R204 0
JP1
C111 0.1
C85 100P
C86 100P
C78 C79 C80 C81 C82 100P
R87 470
C120 220P
C121 220P
Z32 330x4
Z33 330x4
Z34 Z35 Z36 470x4
Z37 Z38 4.7Kx4
Z39 Z40 22Kx4
LRCK ML/IIS
DATA MC/DW1
BCK MD/DW0
CLKO MUTE
XTI MODE
XTO CS/IW0
DGND RST
VDD ZERO
VCC2R VCC2L
AG2R AG2L
EXTR EXTL
NC NC
VOR VOL
AGND1 VCC1
CN1
SNS
VCC
VCC
E
E
PMUT
E
E
-15
+15
SUMR
SUML
TO FJASP CN5
CN2
SUMR
SUML
E
VOLR
VOLL

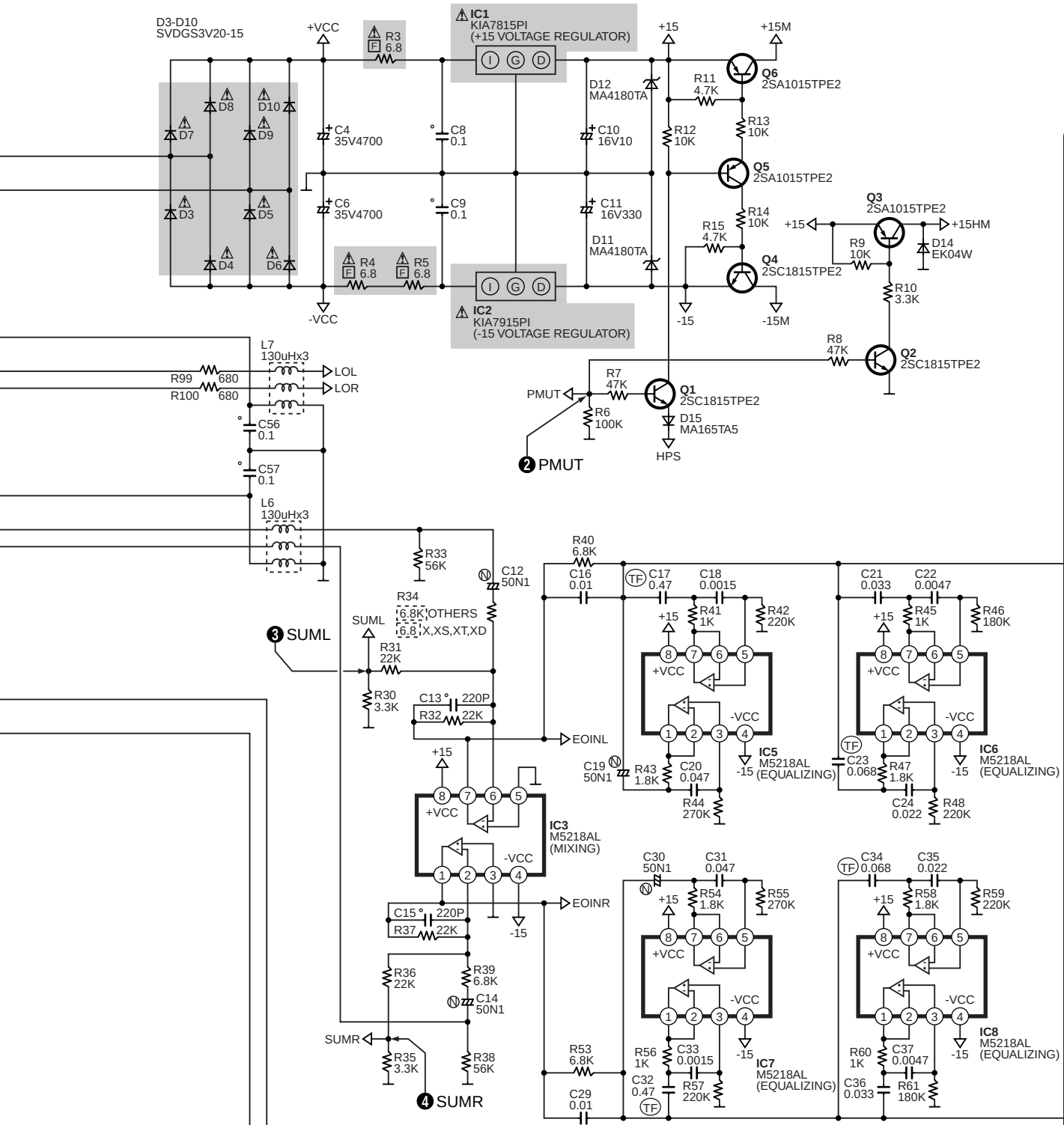
TO CPL CN4
L8 0
L9 0
L11 0
L12 0
CN4
+5
E
KF0
KS0
KF1
KS0
KF2
KS2
KF3
KS3
KDB3
KDB2
KDB1
KDB0
KDB4
E
TO MKB CN1
L14 0
L15 0
L16 0
L17 0
L18 0
L19 0
L20 0
L21 0
L22 0
L23 0
L24 0
L25 0
L26 0
L27 0
CN3
5IP
SDT
SCK
E
5MI
TO CPL CN1
L29 0
L30 0
L31 0
L33 0
D22 D23 D24 D25 D26 D27 D28 D29
5MI

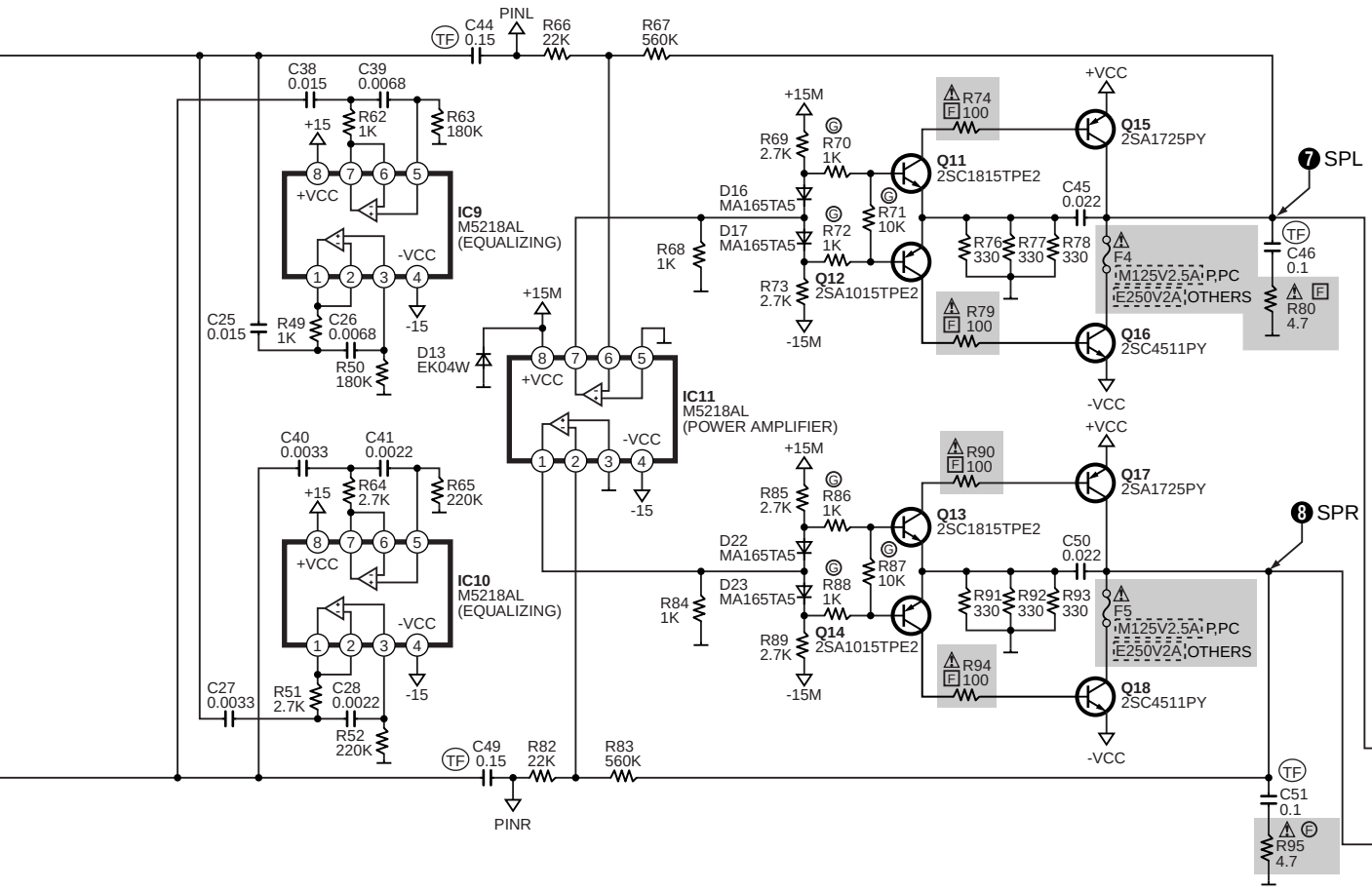
B FJASP CIRCUIT

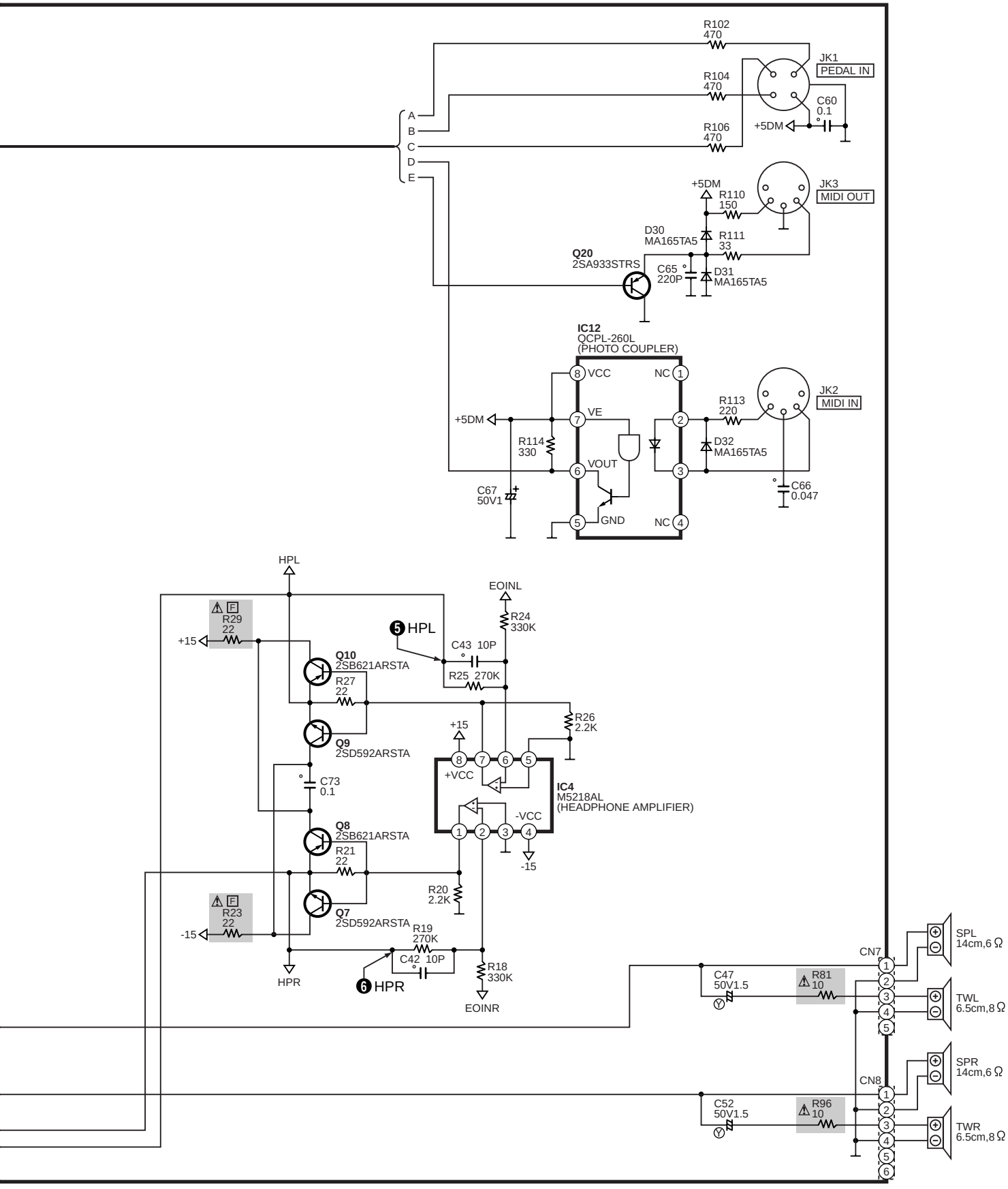


I HP CIRCUIT

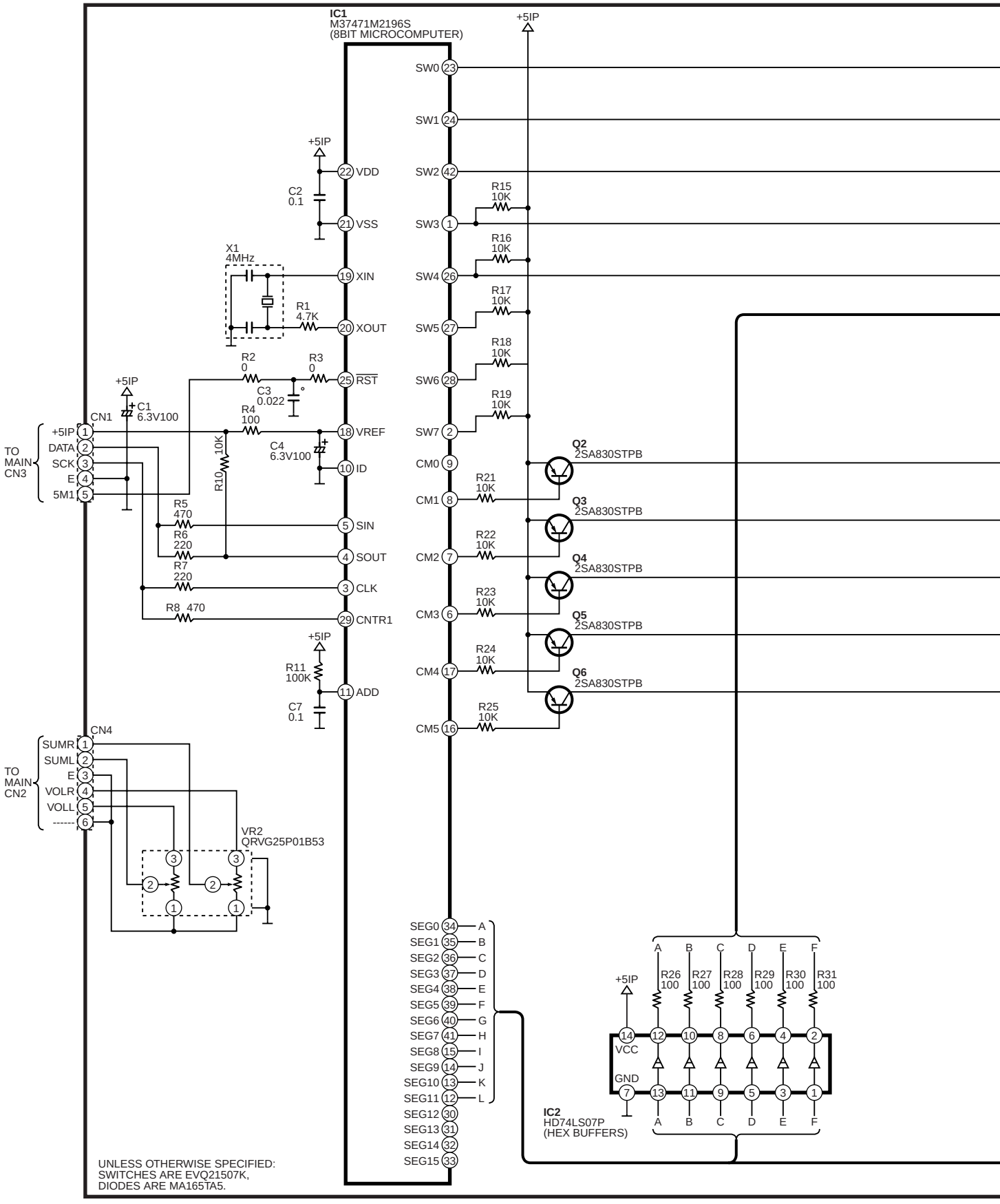


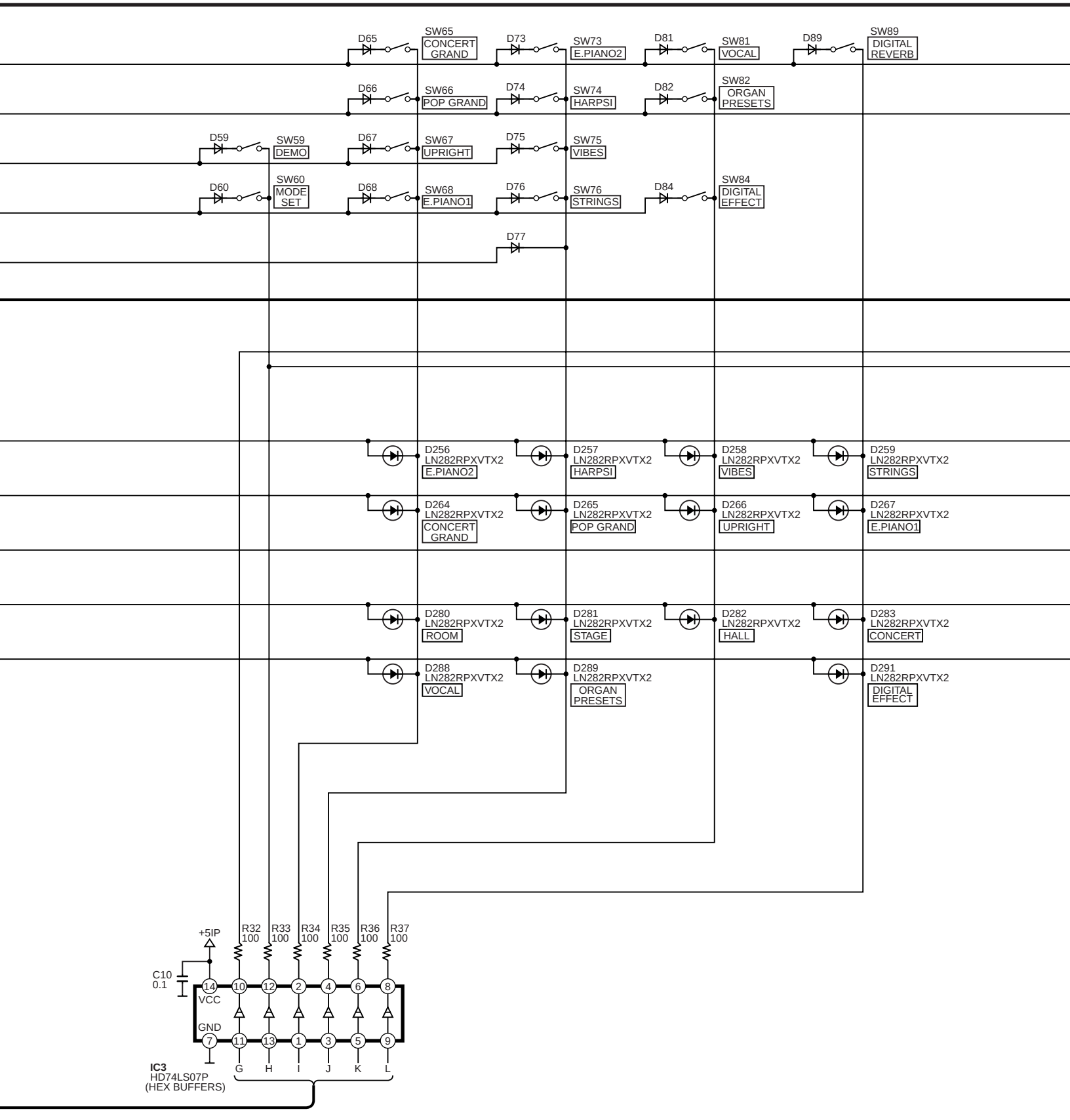

D3-D10
SVDGS3V20-15
+VCC
R3
6.8
IC1
KIA7815PI
(+15 VOLTAGE REGULATOR)
+15
+15M
D12
MA4180TA
R11
4.7K
Q6
2SA1015TPE2
R12
10K
R13
10K
Q5
2SA1015TPE2
C4
35V4700
C8
0.1
C10
16V10
C6
35V4700
C9
0.1
C11
16V330
R14
10K
R15
4.7K
D11
MA4180TA
Q3
2SA1015TPE2
+15HM
D14
EK04W
R9
10K
Q4
2SC1815TPE2
R10
3.3K
R4
6.8
R5
6.8
-VCC
IC2
KIA7915PI
(-15 VOLTAGE REGULATOR)
-15
-15M
R8
47K
Q2
2SC1815TPE2
L7
130uHx3
R99
680
R100
680
LOL
LOR
C56
0.1
C57
0.1
L6
130uHx3
R7
47K
PMUT
Q1
2SC1815TPE2
R6
100K
D15
MA165TA5
HPS
2 PMUT
R33
56K
C12
50N1
R34
6.8K OTHERS
6.8 X,XS,XT,XD
SUML
3 SUML
R31
22K
R30
3.3K
C13
220P
R32
22K
EOINL
R40
6.8K
C16
0.01
C17
0.47
C18
0.0015
R41
1K
R42
220K
C19
50N1
R43
1.8K
C20
0.047
R44
270K
IC5
M5218AL
(EQUALIZING)
C21
0.033
C22
0.0047
R45
1K
R46
180K
C23
0.068
R47
1.8K
C24
0.022
R48
220K
IC6
M5218AL
(EQUALIZING)
IC3
M5218AL
(MIXING)
C15
220P
R37
22K
EOINR
R36
22K
R39
6.8K
C14
50N1
SUMR
R35
3.3K
R38
56K
4 SUMR
C30
50N1
C31
0.047
R54
1.8K
R55
270K
R53
6.8K
C32
0.47
C29
0.01
R56
1K
C33
0.0015
R57
220K
IC7
M5218AL
(EQUALIZING)
C34
0.068
C35
0.022
R58
1.8K
R59
220K
R60
1K
C37
0.0047
C36
0.033
R61
180K
IC8
M5218AL
(EQUALIZING)


PINL
C44 0.15
R66 22K
R67 560K
C38 0.015
C39 0.0068
+15
R62 1K
R63 180K
+VCC
-VCC
IC9
M5218AL
(EQUALIZING)
C25 0.015
R49 1K
C26 0.0068
R50 180K
-15
D13 EK04W
+15M
IC11
M5218AL
(POWER AMPLIFIER)
C40 0.0033
C41 0.0022
R64 2.7K
R65 220K
IC10
M5218AL
(EQUALIZING)
C27 0.0033
R51 2.7K
C28 0.0022
R52 220K
C49 0.15
R82 22K
R83 560K
PINR
R69 2.7K
R70 1K
R71 10K
D16 MA165TA5
D17 MA165TA5
R72 1K
R68 1K
Q11 2SC1815TPE2
Q12 2SA1015TPE2
R73 2.7K
R74 100
R79 100
Q15 2SA1725PY
Q16 2SC4511PY
C45 0.022
R76 330
R77 330
R78 330
F4
M125V2.5A P,PC
E250V2A OTHERS
C46 0.1
R80 4.7
7 SPL
R85 2.7K
R86 1K
R87 10K
D22 MA165TA5
D23 MA165TA5
R88 1K
R84 1K
Q13 2SC1815TPE2
Q14 2SA1725PY
R89 2.7K
R90 100
R94 100
Q17 2SA1725PY
Q18 2SC4511PY
C50 0.022
R91 330
R92 330
R93 330
F5
M125V2.5A P,PC
E250V2A OTHERS
8 SPR
C51 0.1
R95 4.7

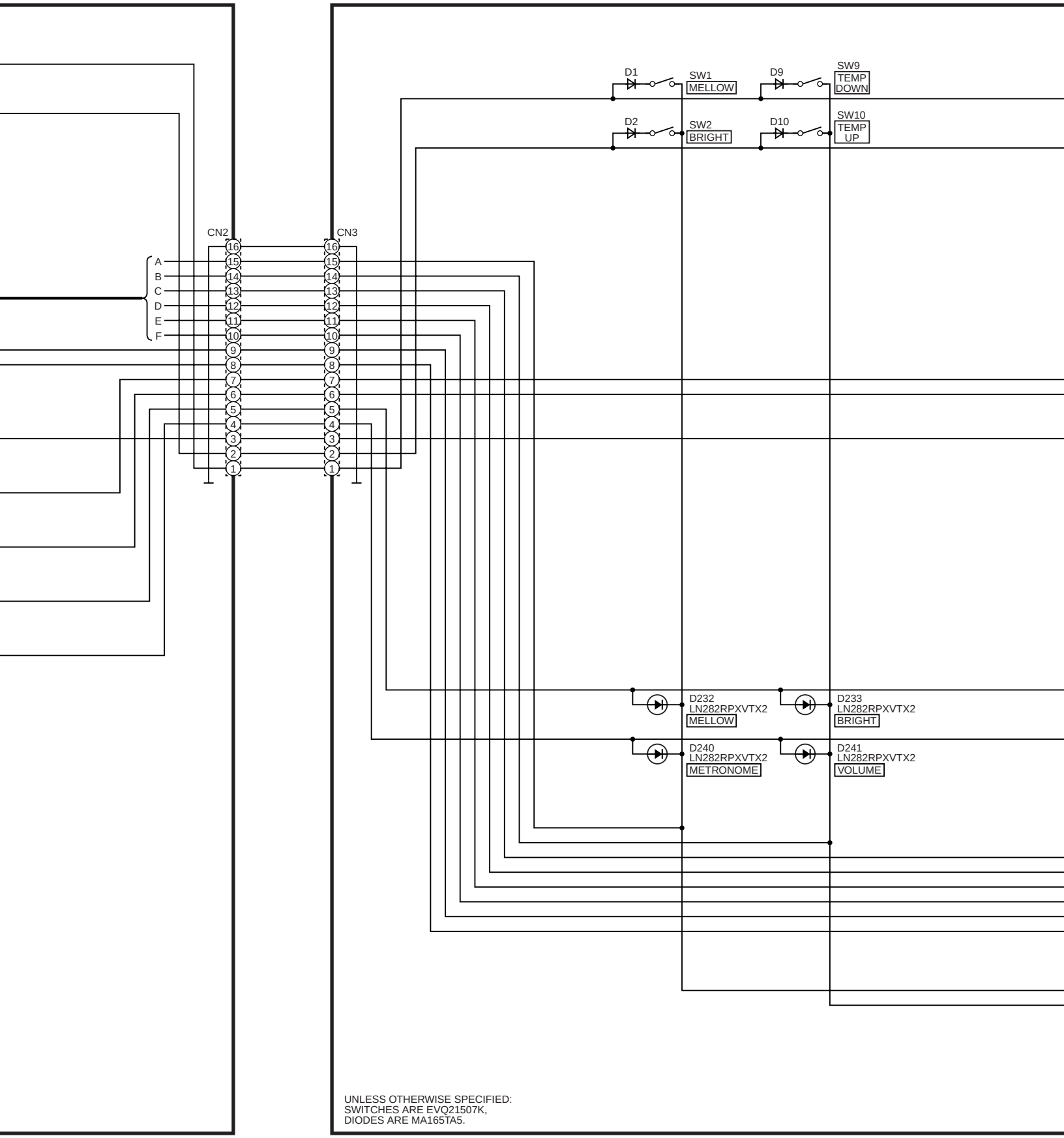

R102
470
JK1
PEDAL IN
R104
470
C60
0.1
+5DM
R106
470
A
B
C
D
E
+5DM
R110
150
JK3
MIDI OUT
D30
MA165TA5
R111
33
Q20
2SA933STRS
C65
220P
D31
MA165TA5
IC12
QCPL-260L
(PHOTO COUPLER)
8 VCC
NC 1
7 VE
2
3
6 VOUT
5 GND
NC 4
+5DM
R114
330
R113
220
JK2
MIDI IN
D32
MA165TA5
C67
50V1
C66
0.047
HPL
EOINL
R24
330K
5 HPL
C43 10P
R25 270K
R29
22
+15
Q10
2SB621ARSTA
R27
22
R26
2.2K
Q9
2SD592ARSTA
+15
C73
0.1
+VCC
IC4
M5218AL
(HEADPHONE AMPLIFIER)
-VCC
Q8
2SB621ARSTA
R21
22
-15
R20
2.2K
R23
22
Q7
2SD592ARSTA
-15
R19
270K
C42 10P
R18
330K
HPR
6 HPR
EOINR
C47
50V1.5
R81
10
CN7
SPL
14cm,6Ω
TWL
6.5cm,8Ω
SPR
14cm,6Ω
CN8
C52
50V1.5
R96
10
TWR
6.5cm,8Ω

C CPL CIRCUIT

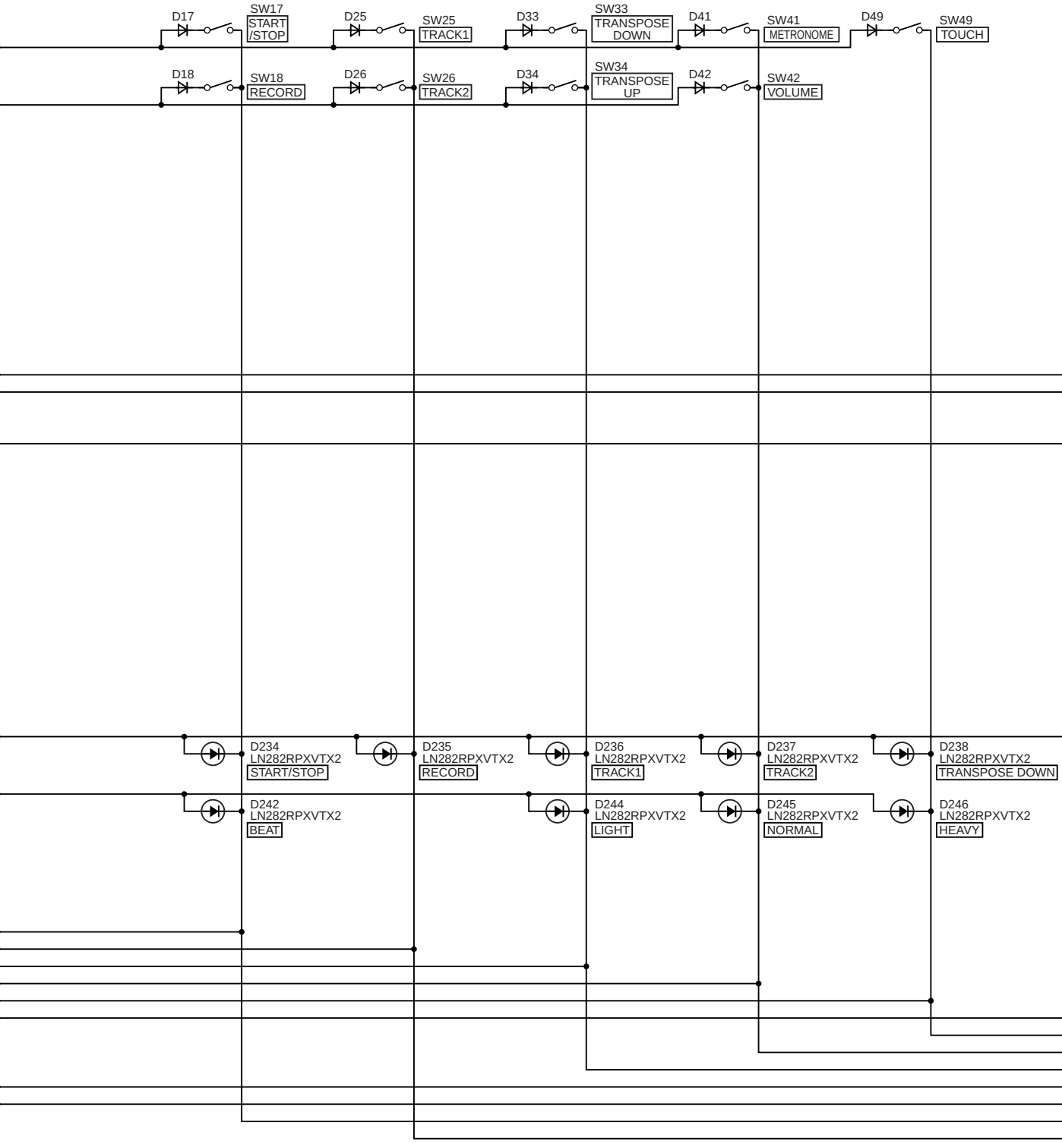


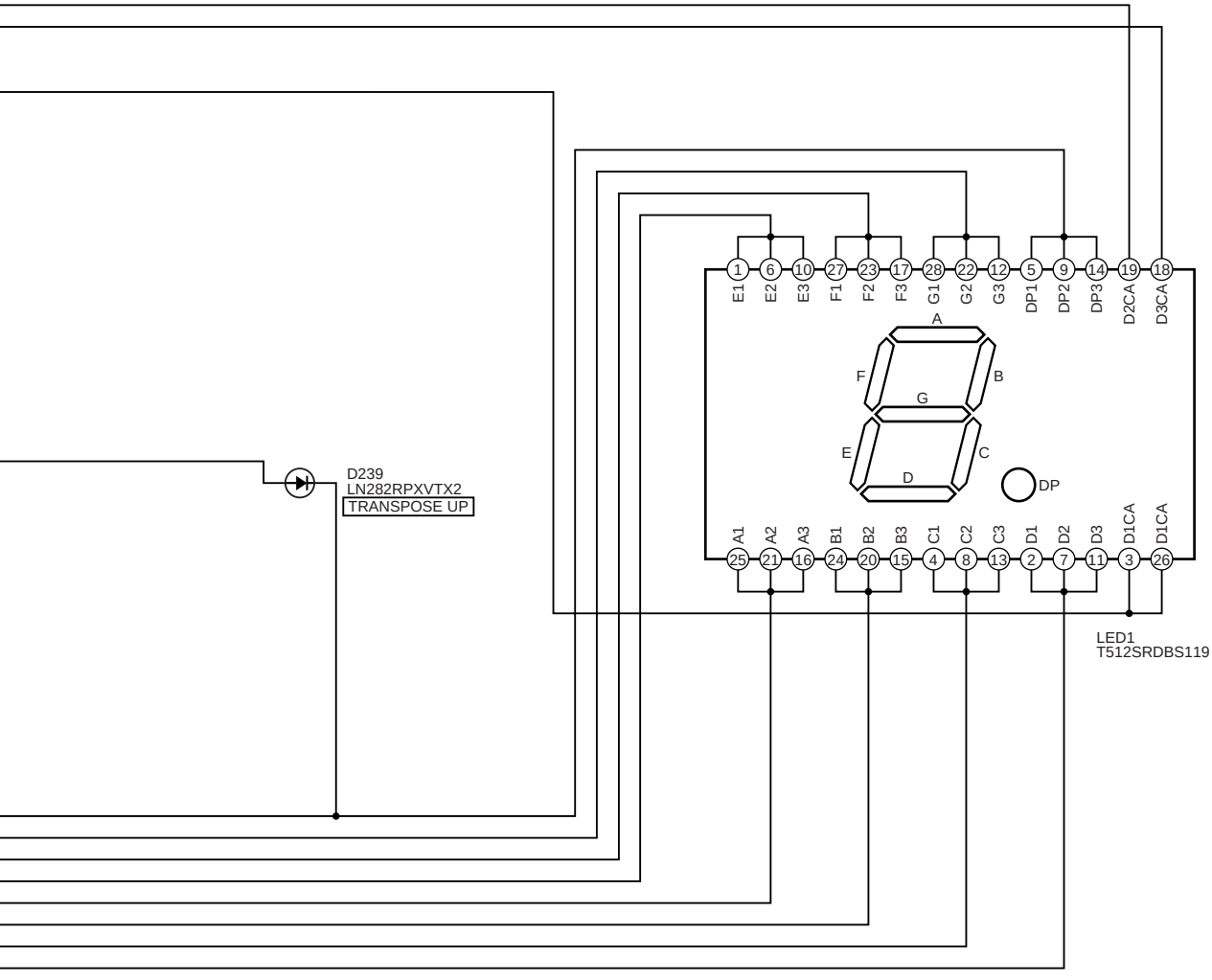

D65
SW65
CONCERT GRAND
D73
SW73
E.PIANO2
D81
SW81
VOCAL
D89
SW89
DIGITAL REVERB
D66
SW66
POP GRAND
D74
SW74
HARPSI
D82
SW82
ORGAN PRESETS
D59
SW59
DEMO
D67
SW67
UPRIGHT
D75
SW75
VIBES
D60
SW60
MODE SET
D68
SW68
E.PIANO1
D76
SW76
STRINGS
D84
SW84
DIGITAL EFFECT
D77
D256
LN282RPXVTX2
E.PIANO2
D257
LN282RPXVTX2
HARPSI
D258
LN282RPXVTX2
VIBES
D259
LN282RPXVTX2
STRINGS
D264
LN282RPXVTX2
CONCERT GRAND
D265
LN282RPXVTX2
POP GRAND
D266
LN282RPXVTX2
UPRIGHT
D267
LN282RPXVTX2
E.PIANO1
D280
LN282RPXVTX2
ROOM
D281
LN282RPXVTX2
STAGE
D282
LN282RPXVTX2
HALL
D283
LN282RPXVTX2
CONCERT
D288
LN282RPXVTX2
VOCAL
D289
LN282RPXVTX2
ORGAN PRESETS
D291
LN282RPXVTX2
DIGITAL EFFECT
+5IP
R32 100
R33 100
R34 100
R35 100
R36 100
R37 100
C10
0.1
VCC
GND
14
10
12
2
4
6
8
7
11
13
1
3
5
9
G
H
I
J
K
L
IC3
HD74LS07P
(HEX BUFFERS)

D CPR CIRCUIT

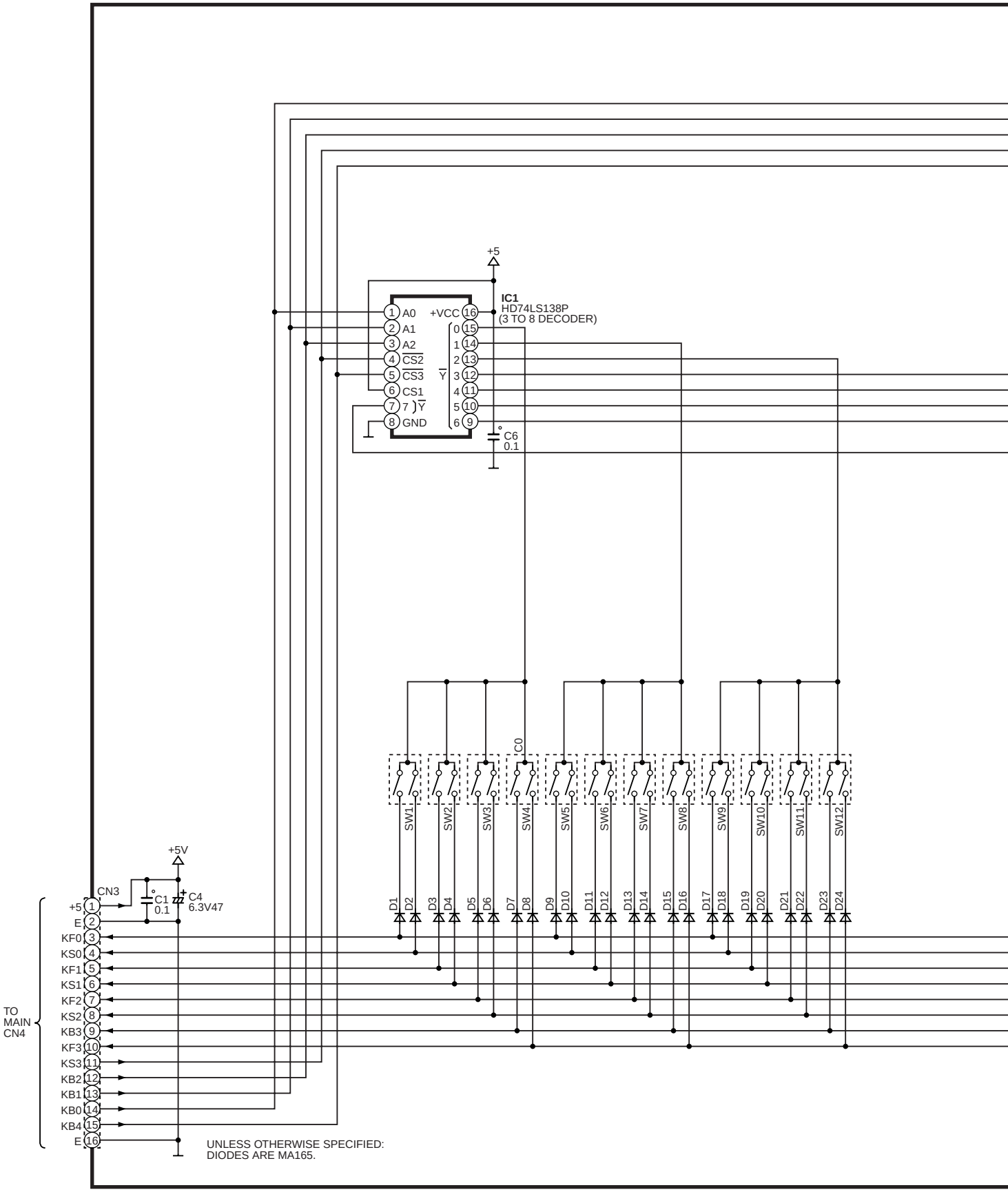


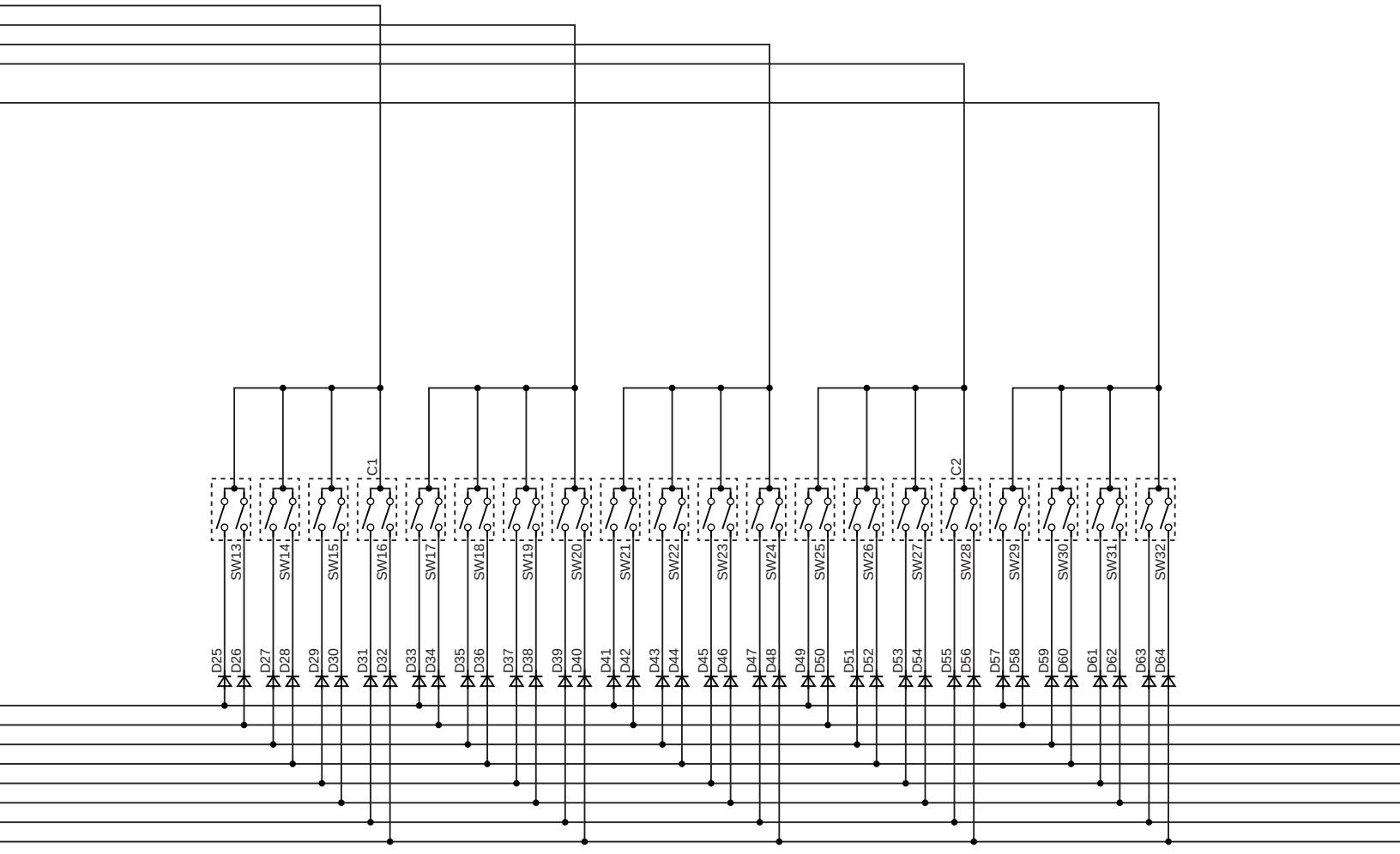
UNLESS OTHERWISE SPECIFIED:
SWITCHES ARE EVQ21507K,
DIODES ARE MA165TA5.


D17
SW17
START /STOP
D25
SW25
TRACK1
D33
SW33
TRANSPOSE DOWN
D41
SW41
METRONOME
D49
SW49
TOUCH
D18
SW18
RECORD
D26
SW26
TRACK2
D34
SW34
TRANSPOSE UP
D42
SW42
VOLUME
D234
LN282RPXVTX2
START/STOP
D235
LN282RPXVTX2
RECORD
D236
LN282RPXVTX2
TRACK1
D237
LN282RPXVTX2
TRACK2
D238
LN282RPXVTX2
TRANSPOSE DOWN
D242
LN282RPXVTX2
BEAT
D244
LN282RPXVTX2
LIGHT
D245
LN282RPXVTX2
NORMAL
D246
LN282RPXVTX2
HEAVY

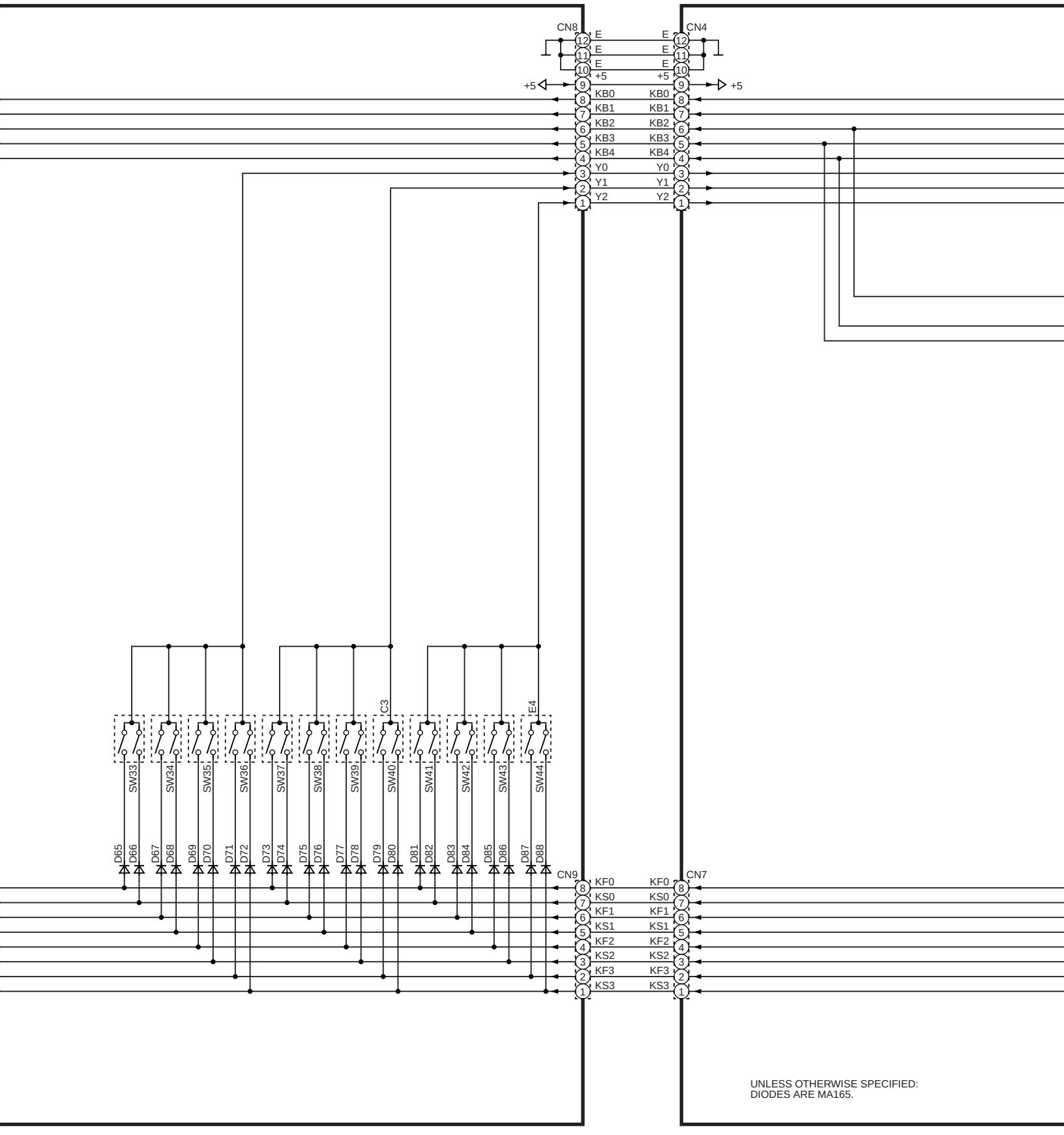

D239
LN282RPXVTX2
TRANSPOSE UP
1 E1
6 E2
10 E3
27 F1
23 F2
17 F3
28 G1
22 G2
12 G3
5 DP1
9 DP2
14 DP3
19 D2CA
18 D3CA
A
F
B
G
E
C
D
DP
25 A1
21 A2
16 A3
24 B1
20 B2
15 B3
4 C1
8 C2
13 C3
2 D1
7 D2
11 D3
3 D1CA
26 D1CA
LED1
T512SRDBS119

E MKB1 CIRCUIT

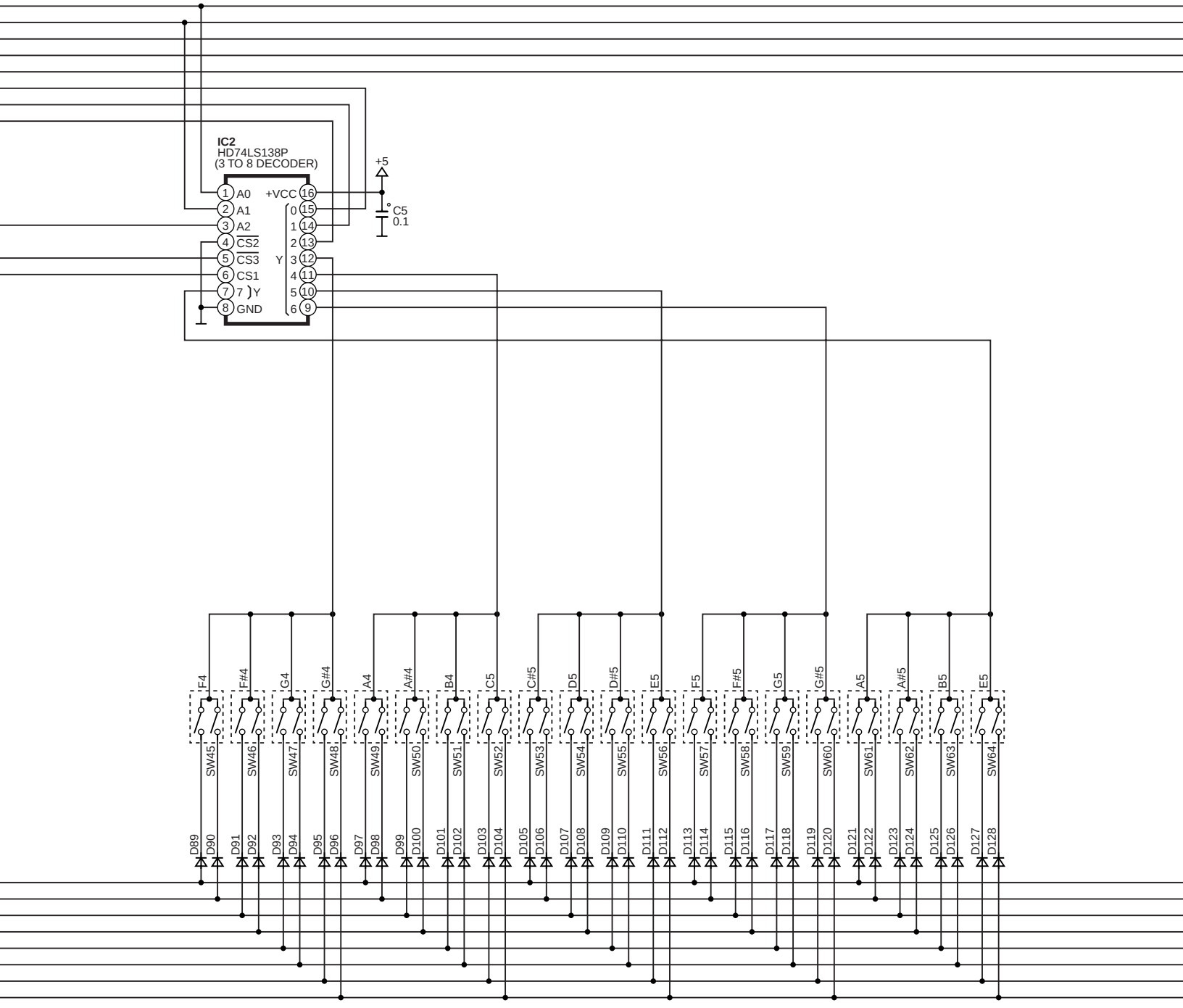


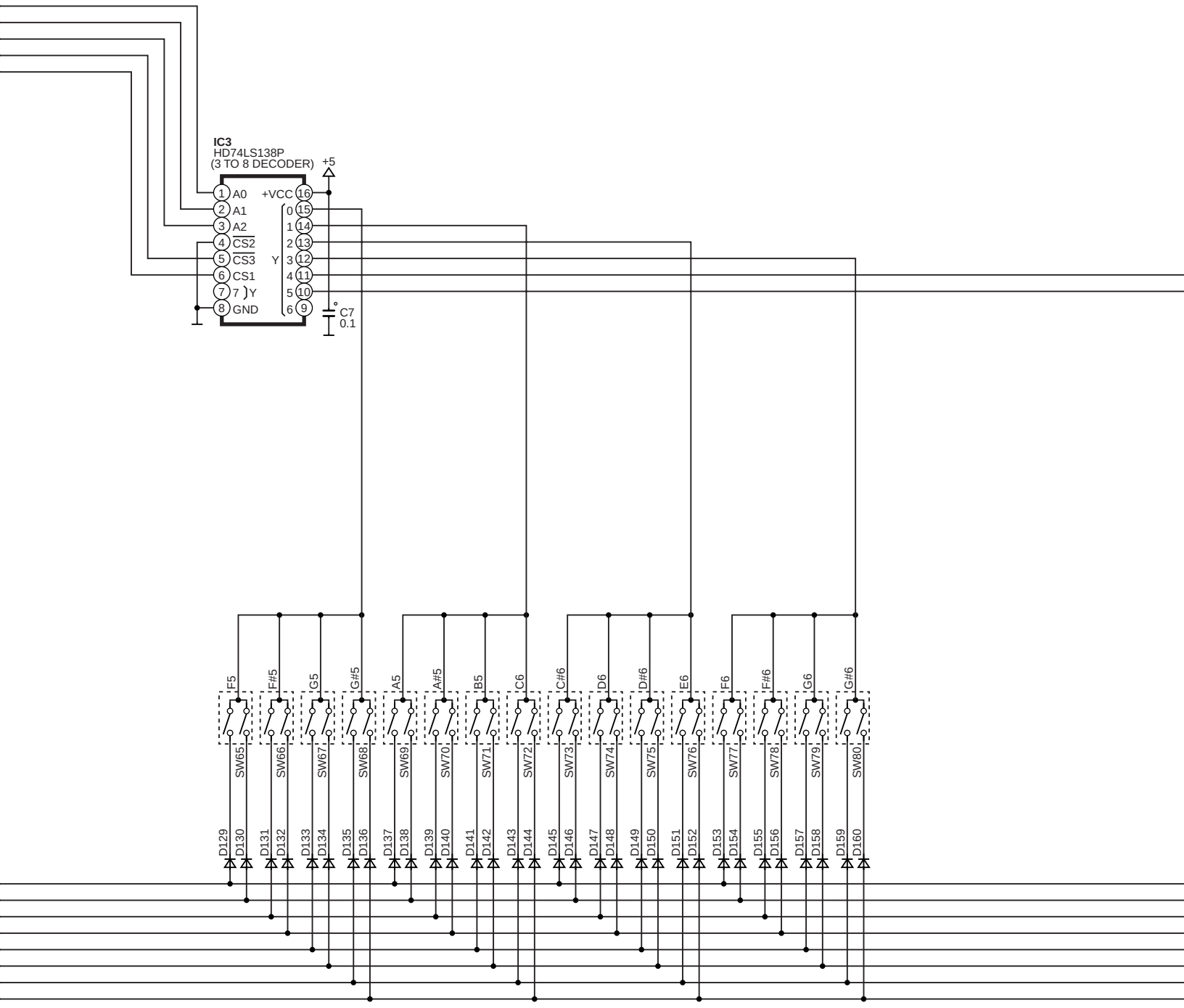

C1
C2
SW13
SW14
SW15
SW16
SW17
SW18
SW19
SW20
SW21
SW22
SW23
SW24
SW25
SW26
SW27
SW28
SW29
SW30
SW31
SW32
D25
D26
D27
D28
D29
D30
D31
D32
D33
D34
D35
D36
D37
D38
D39
D40
D41
D42
D43
D44
D45
D46
D47
D48
D49
D50
D51
D52
D53
D54
D55
D56
D57
D58
D59
D60
D61
D62
D63
D64

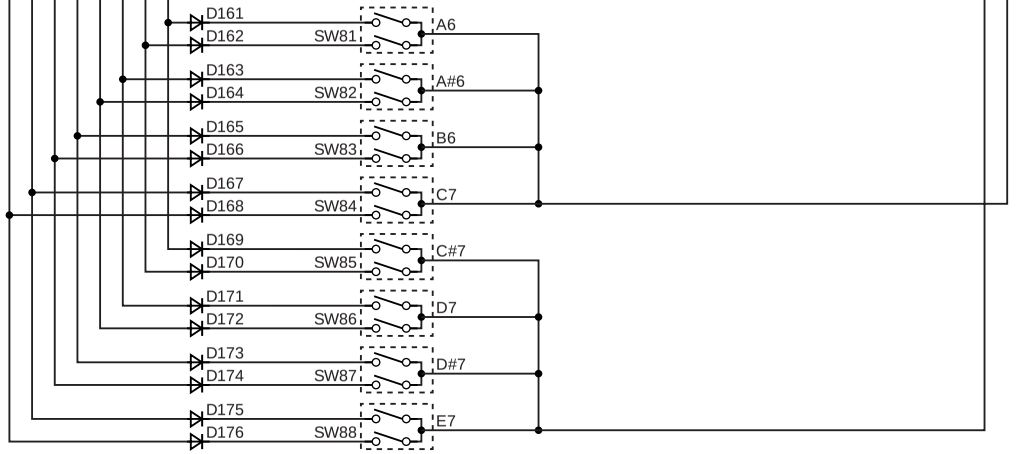
F MKB2 CIRCUIT



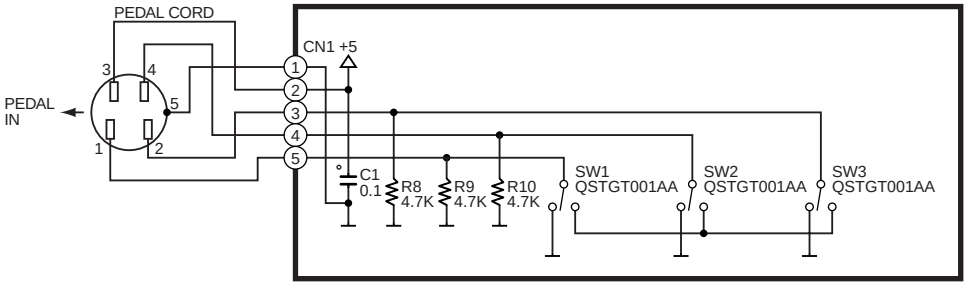
UNLESS OTHERWISE SPECIFIED:
DIODES ARE MA165.


IC2
HD74LS138P
(3 TO 8 DECODER)
+5
C5
0.1
A0
A1
A2
CS2
CS3
CS1
7
GND
+VCC
Y
F4
F#4
G4
G#4
A4
A#4
B4
C5
C#5
D5
D#5
E5
F5
F#5
G5
G#5
A5
A#5
B5
E5
SW45
SW46
SW47
SW48
SW49
SW50
SW51
SW52
SW53
SW54
SW55
SW56
SW57
SW58
SW59
SW60
SW61
SW62
SW63
SW64
D89
D90
D91
D92
D93
D94
D95
D96
D97
D98
D99
D100
D101
D102
D103
D104
D105
D106
D107
D108
D109
D110
D111
D112
D113
D114
D115
D116
D117
D118
D119
D120
D121
D122
D123
D124
D125
D126
D127
D128

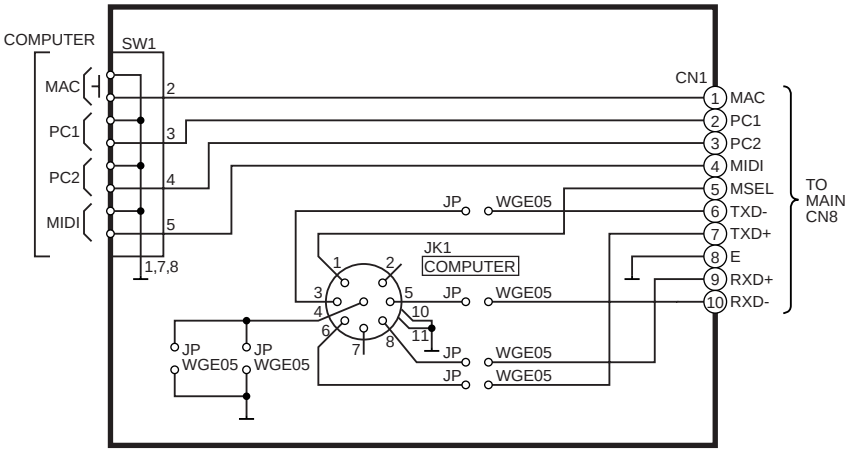

IC3
HD74LS138P
(3 TO 8 DECODER)
+5
A0
A1
A2
CS2
CS3
CS1
7
GND
+VCC
Y
C7
0.1
F5
F#5
G5
G#5
A5
A#5
B5
C6
C#6
D6
D#6
E6
F6
F#6
G6
G#6
SW65
SW66
SW67
SW68
SW69
SW70
SW71
SW72
SW73
SW74
SW75
SW76
SW77
SW78
SW79
SW80
D129
D130
D131
D132
D133
D134
D135
D136
D137
D138
D139
D140
D141
D142
D143
D144
D145
D146
D147
D148
D149
D150
D151
D152
D153
D154
D155
D156
D157
D158
D159
D160

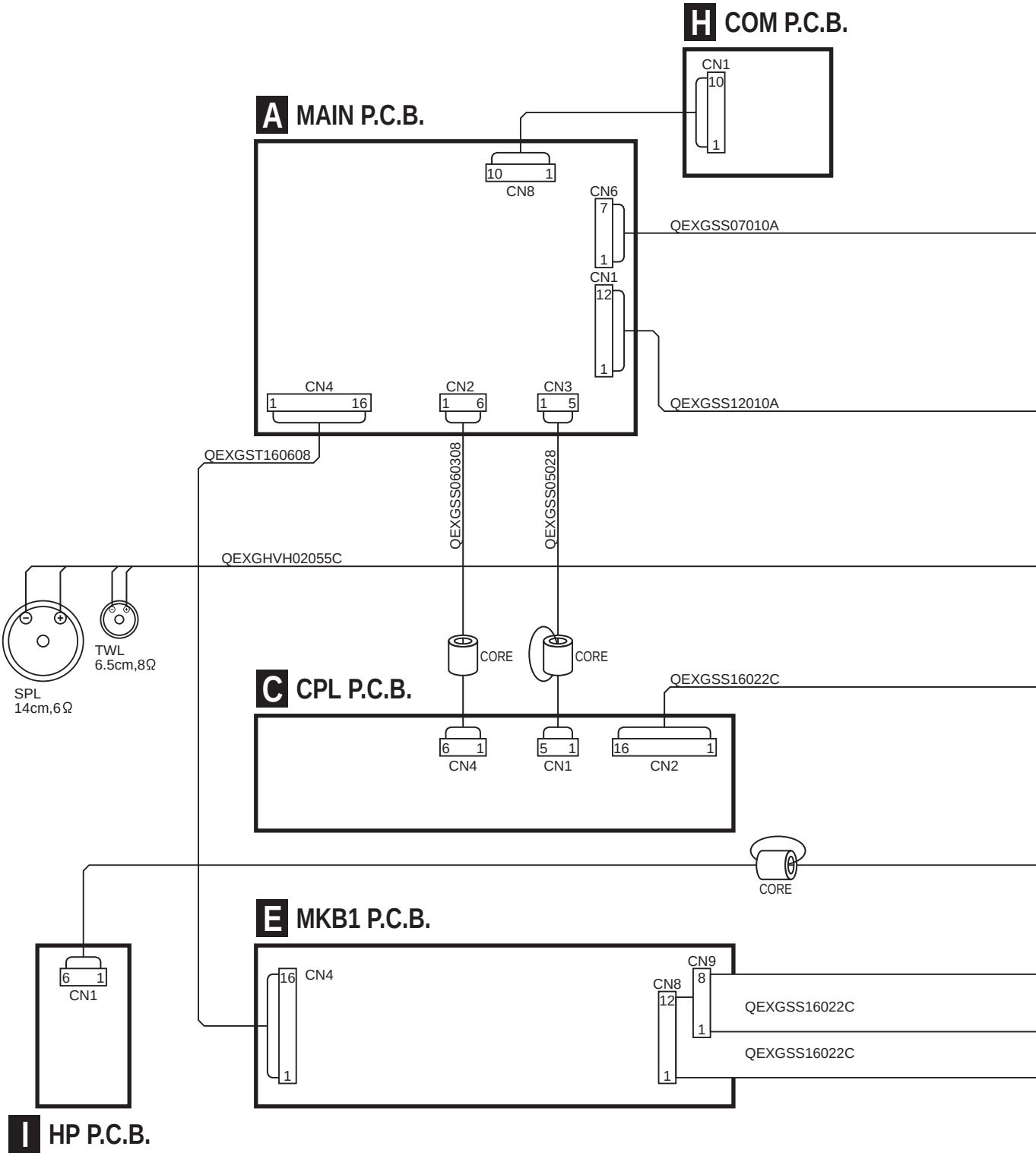

D161
D162
SW81
A6
D163
D164
SW82
A#6
D165
D166
SW83
B6
D167
D168
SW84
C7
D169
D170
SW85
C#7
D171
D172
SW86
D7
D173
D174
SW87
D#7
D175
D176
SW88
E7

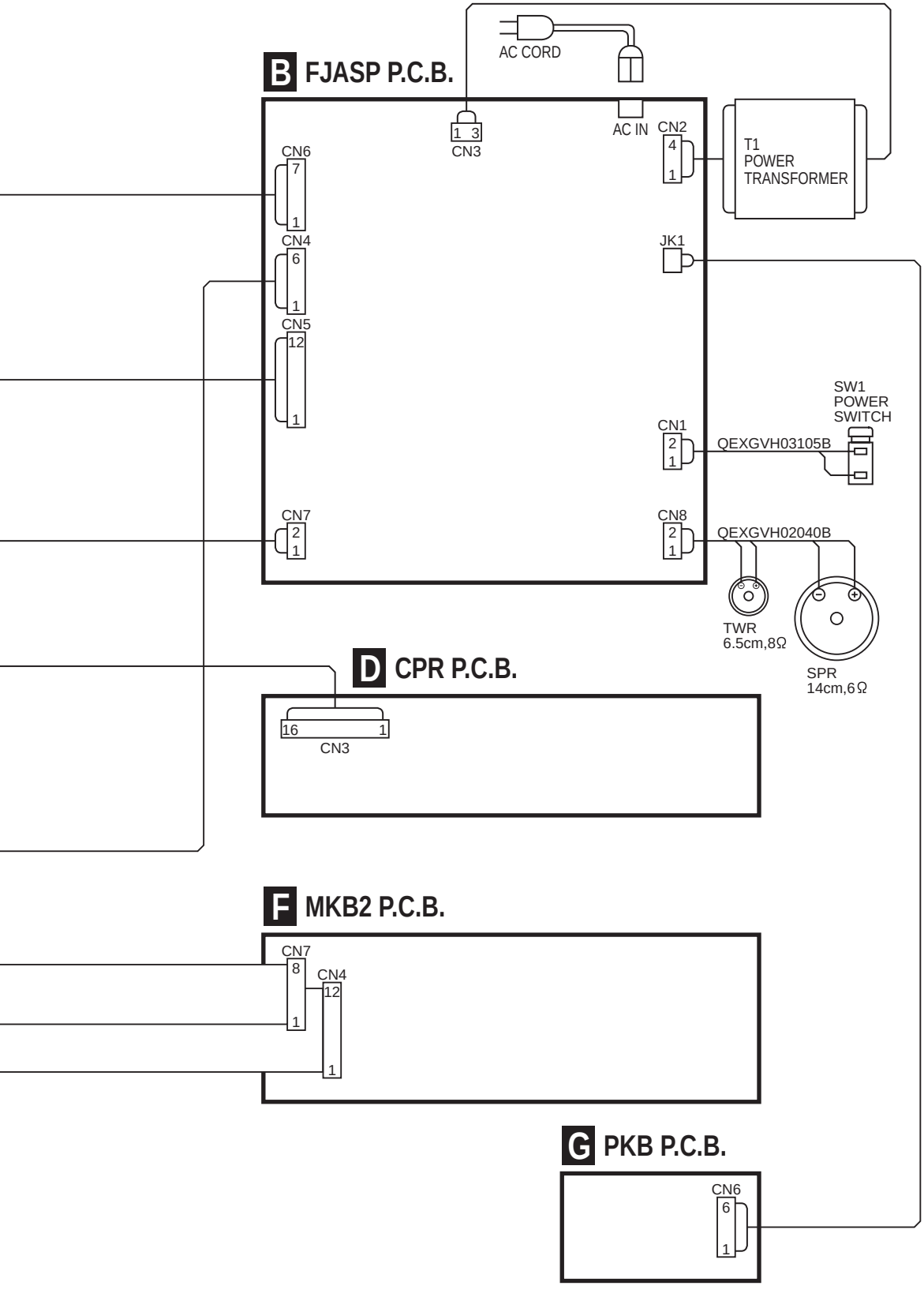
G PKB CIRCUIT



H COM CIRCUIT




H COM P.C.B.
CN1
10
1
A MAIN P.C.B.
10 1
CN8
CN6
7
1
QEXGSS07010A
CN1
12
1
QEXGSS12010A
CN4
1 16
CN2
1 6
CN3
1 5
QEXGST160608
QEXGSS060308
QEXGSS05028
QEXGHVH02055C
TWL
6.5cm,8Ω
SPL
14cm,6Ω
CORE
CORE
C CPL P.C.B.
QEXGSS16022C
6 1
CN4
5 1
CN1
16 1
CN2
CORE
E MKB1 P.C.B.
6 1
CN1
16
CN4
1
CN9
CN8
8
12
1
1
QEXGSS16022C
QEXGSS16022C
I HP P.C.B.


B FJASP P.C.B.
AC CORD
1 3
CN3
AC IN
CN2
4
1
T1
POWER
TRANSFORMER
CN6
7
1
CN4
6
1
CN5
12
1
JK1
SW1
POWER
SWITCH
CN1
2
1
QEXGVH03105B
CN7
2
1
CN8
2
1
QEXGVH02040B
TWR
6.5cm,8Ω
SPR
14cm,6Ω
D CPR P.C.B.
16
1
CN3
F MKB2 P.C.B.
CN7
8
1
CN4
12
1
G PKB P.C.B.
CN6
6
1

Sounds and effects

SOUND

Press one of the **SOUND** buttons to select the desired sound.
Each sound features Touch Response, which increases the volume when the keyboard is played harder.

- The sounds can be mixed when two **SOUND** buttons are pressed simultaneously.
- **PX554**: If the **ORGAN PRESETS** button is pressed, organ sounds are produced.
- On this piano, the maximum number of notes which can sound simultaneously is 32 (**PX552**)/64 (**PX554**). (Lower range notes have priority over higher range notes.)

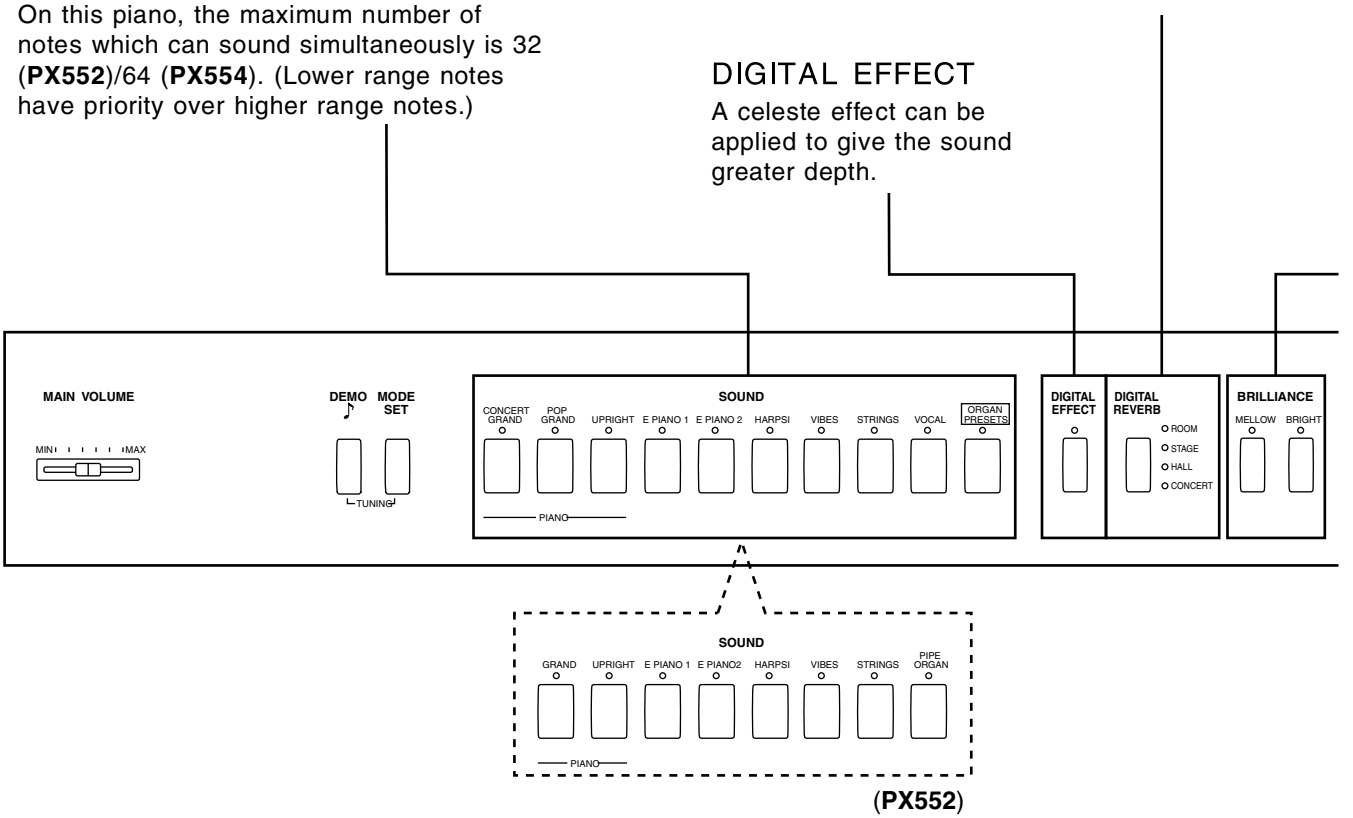
DIGITAL REVERB

DIGITAL REVERB applies a reverberation effect to the sound. Select from four echo types—**ROOM**, **STAGE**, **HALL** and **CONCERT**.

- The type and depth of the **DIGITAL REVERB** can be set for each sound.

DIGITAL EFFECT

A celeste effect can be applied to give the sound greater depth.



(**PX552**)

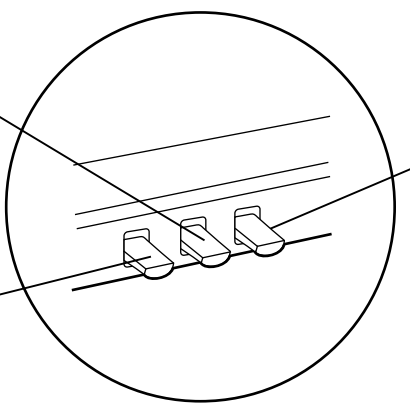
Sostenuto pedal

The middle pedal is used as a sostenuto pedal. If the pedal is pressed while the keys are pressed, a sustain effect is applied to those notes only.

- For sustained-type sounds (**ORGAN**, **STRINGS** and **VOCAL** [**PX554**]), the notes sound for as long as the pedal is depressed.

Soft pedal

The left pedal can be used as a soft pedal. When the pedal is depressed, the sound is softer.



BRILLIANCE

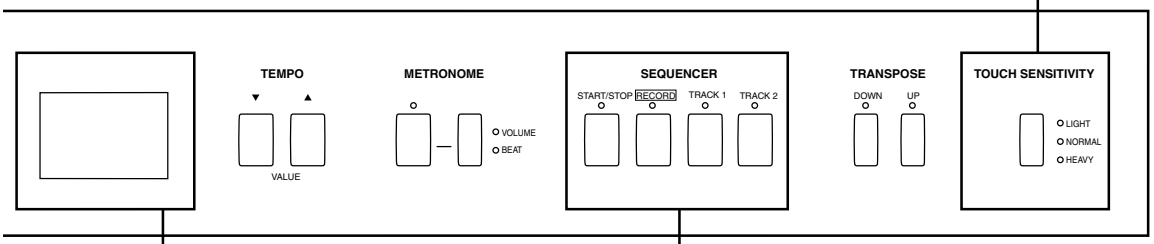
The **BRILLIANCE** allows you to select the brightness of the sound from 5 settings.
If either of the buttons is pressed once, the current setting value will appear on the display, and it can then be changed.
Pressing the **BRIGHT** button increases the brightness; when the **MELLOW** button is pressed, the sound becomes mellower. During setting the brightness is shown on the display (–2 to 2).

- Press both buttons at the same time to return the brightness to 0.
- A short time after the setting is completed, the display will return to the turned-off condition.
- If the **BRILLIANCE** has been set to a number other than 0, one of the indicators remains lit.

TOUCH SENSITIVITY

The keyboard touch (Touch Response) can be changed to match your type of playing.

- Choose from **LIGHT**, **NORMAL** and **HEAVY**.



(**PX554**)

Display

The display shows a variety of different setting values, and also the **SEQUENCER** and **METRONOME** tempos.

- During normal playing, it is turned off.

SEQUENCER

Record your performance and have it automatically played back.

Sustain pedal

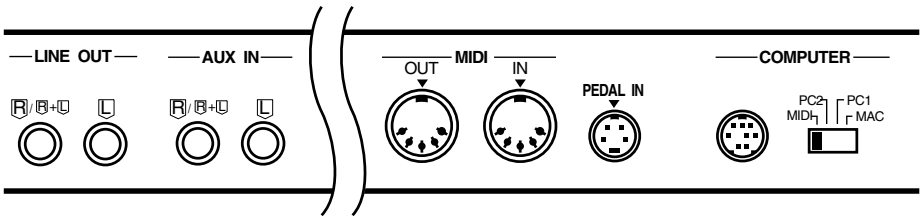
The right pedal allows you to use sustain. When a key is released while this pedal is depressed, the sound is sustained so that it lingers and slowly fades out.

- String resonance is added to some sounds.

Setting the effects for each sound
The **DIGITAL EFFECT**, **BRILLIANCE** and **DIGITAL REVERB** are stored independently for each sound. When a **SOUND** button is pressed, the effect settings for the selected sound are recalled.

Connections

(On the back of piano)

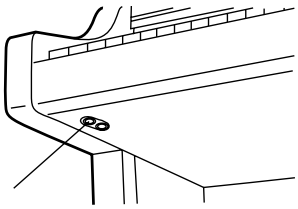


PEDAL IN
Connect the cord from the included stand to this terminal.

AUX IN (input level 0.5 Vrms, 6 kΩ)
Other instruments such as a rhythm machine or sound module can be connected to the piano so that the sound is output from the piano. To receive monaural sound, connect instruments to the **R/R+L** terminal.

LINE OUT (output level 1.5 Vrms, 600 Ω)
By plugging into a high-power amplifier, the sound can be reproduced at high volume. (Use the **R/R+L** terminal when outputting monaural sound. However, there are some cases where the sound quality may deteriorate depending on the sound.)

HEADPHONES (phones) ×2
(Beneath the keyboard, on the left side)
For silent practice headphones may be used. When plugged in, the speaker system is automatically switched off, and sound is heard only through the headphones.



phones

COMPUTER
By connecting this terminal to the serial port of a computer, performance data can be exchanged. Use the switch to select the type of computer.

- Be sure that the power to this instrument is turned off when connecting to a computer or when changing the switch setting.
- The new switch setting will be effective when the power is turned on again.

Caution: Failure to turn off the power before changing the switch setting may result in malfunction.

- When no computer is connected, or when a MIDI interface is used, the switch should be set to **MIDI**.

Connection to a Macintosh series computer
Use an ACCESSORY CABLE (SZ-JJAP1, sold separately) to connect the **COMPUTER** terminal of this instrument to the modem port or printer port of a Macintosh Series computer. Set the switch to **MAC**.

- Set the MIDI interface clock of the Macintosh software to 1 MHz.
- Do not remove the core at either end of the cable.

Connection to a PC
Use an ACCESSORY CABLE (SZ-JJAT1, sold separately) to connect the **COMPUTER** terminal of this instrument to the RS232C terminal of a PC. Set the switch to **PC2**.

- The MIDI driver included with the cable should be installed in the computer. (Refer to the manual accompanying the cable.)
- Do not remove the core at either end of the cable.

* All product and company names are trademarks or registered trademarks of their respective owners.

Symptoms which appear to be signs of trouble

Phenomenon	Remedy
No sound is produced when the keyboard is played.	• No sound is produced if the **MAIN VOLUME** is set to **MIN**. Use the sliding control to set the volume to an appropriate level. • If the MIDI LOCAL CONTROL is set to off, set it to on.
Nothing is shown on the display.	• The metronome, **SEQUENCER** tempo, etc. are indicated on the display. During normal performance, however, the display is off.
Data cannot be exchanged through MIDI terminals.	• The switch for the **COMPUTER** terminal is not set to **MIDI**. Turn off the power to this instrument and set the switch to **MIDI**. • Match the channels on the transmitting side and the receiving side.
The sound quavers or is distorted.	• When the **COMPUTER** terminal or both the **MIDI IN** and **OUT** terminals are connected to a computer, depending on the computer software the received data may be sent back to the instrument just as it is. Because of this the sound generated from the keys and the sound generated from the returned data are both produced, causing undesirable effects, such as the sounds canceling each other out, for example. In this case, either change the software settings to prevent received data from being returned, or set the MIDI LOCAL CONTROL to off.

■ **About the backup memory**

The selected sound and various functions, MIDI settings and **SEQUENCER** contents remain in the memory for about one week after the **POWER** is turned off.

- The backup memory will not function until the **POWER** has been on for about 10 minutes.
- If you wish to return all memories and settings to their initialized status, while pressing the **MODE SET** button, press the **INITIAL** key on the keyboard. Or you can turn on the **POWER** while pressing the **INITIAL** key.
- When the **POWER** is turned on, the MIDI LOCAL CONTROL is set to on.
- If you wish to retain the memory for longer than one week, before one week has elapsed, turn on the power and leave it on for about 10 minutes before turning it off again. The settings will remain in the memory for about one week from this time.

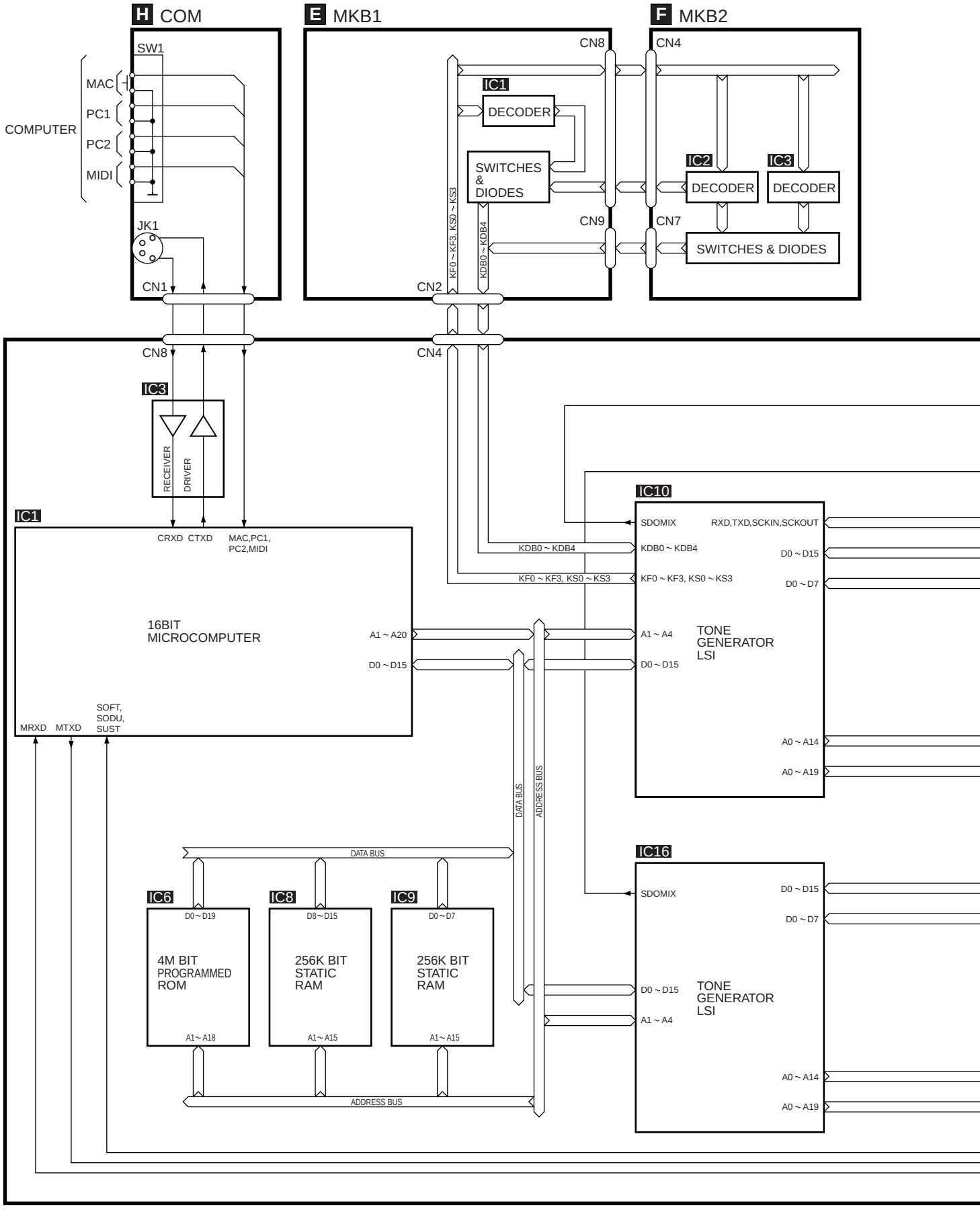
MIDI Implementation Chart

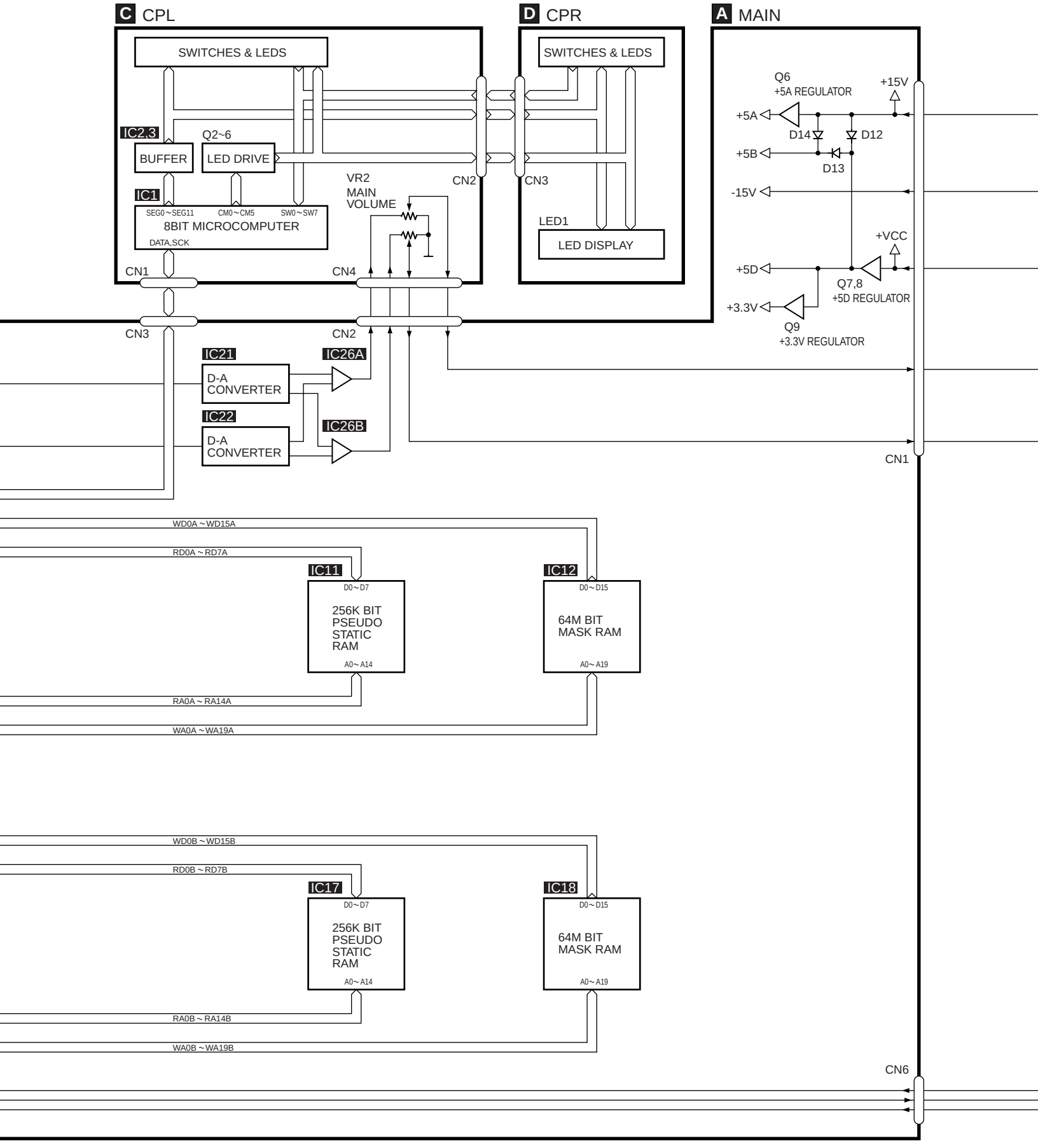
Digital piano [SX-PX554/M]

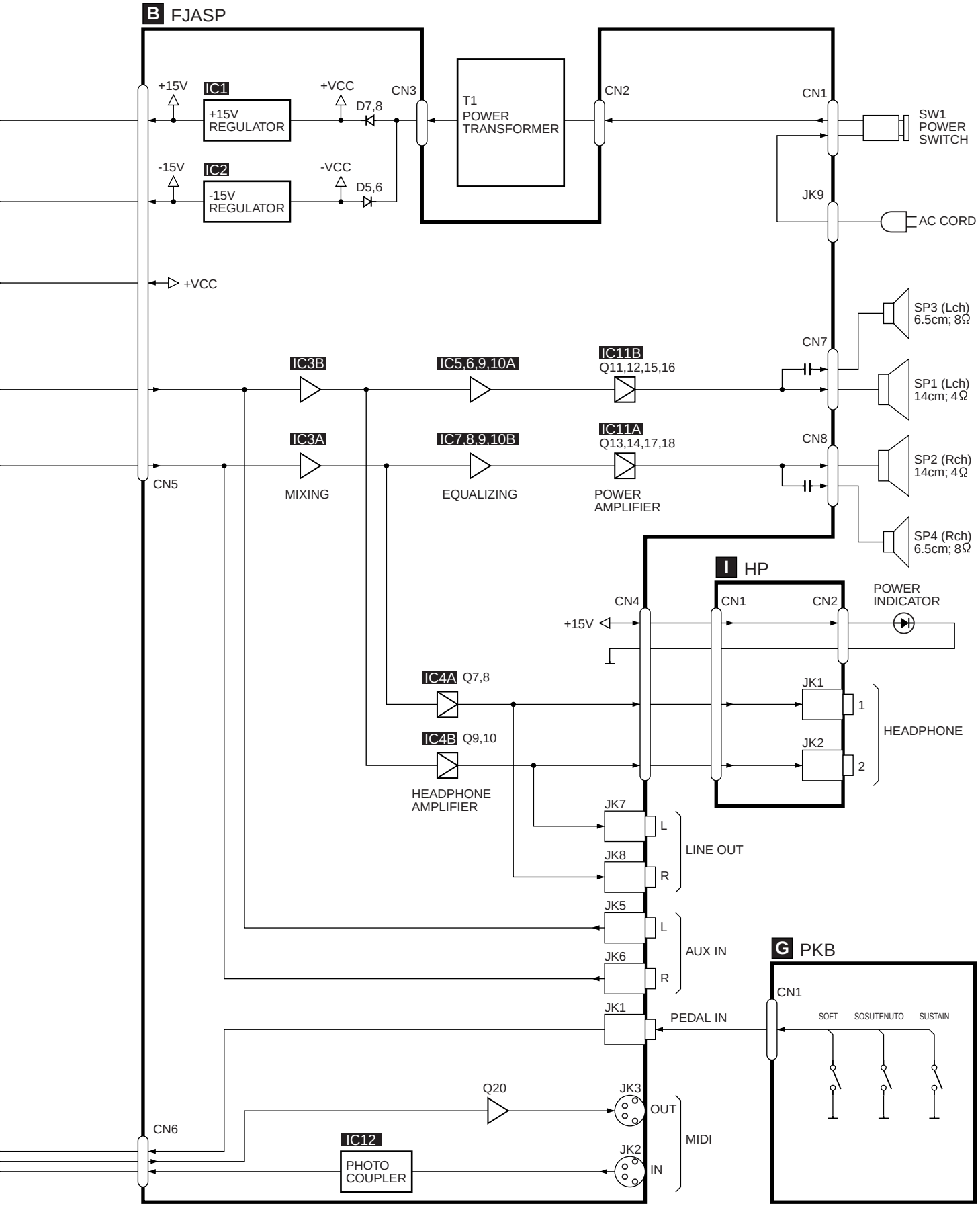
Function		Transmitted	Recognized	Remarks
Basic	Default	1-16	1-16	memorized
Channel	Changed	1-16	1-16	
	Default	3	1, 3	memorized
Mode	Messages	×	×	
	Altered	-	-	
Note		*21-108	0-127	
Number	True voice	-	*0-127	
Velocity	Note ON	○	○	
	Note OFF	× (9nH: V=0)	×	
After	Key's	×	×	
Touch	Ch's	×	×	
Pitch Bend		×	○	
	01	×	**○	modulation
	06,38	×	**○	data entry
	07	×	**○	volume (part)
	10	×	**○	pan
Control	11	×	**○	part expression
Change	64	○×	○×	sustain pedal
	66	○×	○×	sostenuto pedal
	67	○×	○×	soft pedal
	91	×	**○	reverb depth
	93	○×	○×	digital effect
	98, 99	×	**○	NRPN LSB, MSB
	100,101	×	**○	RPN LSB, MSB
Prog		○×	○×	
Change	True #	0-127	0- 7 (PX552) 0-17 (PX554)	
System Exclusive		×		
System	Song Pos	×	×	
	Song Sel	×	×	
Common	Tune	×	×	
System	Clock	×	×	
Real Time	Commands	×	×	
Aux	Local ON/OFF	×	○	
	All Notes OFF	×	○	
Messages	Active Sense	○	○	
	Reset	×	×	
Notes		× .....Whether or not the data for each of these items is transmitted or received can be set. * Changes depending on the **TRANSPOSE** setting. ** Effective only in the MULTI TIMBRE mode.		

Mode 1: OMNI ON, POLY **Mode 2:** OMNI ON, MONO ○: Yes

Mode 3: OMNI OFF, POLY **Mode 4:** OMNI OFF, MONO ×: No


H COM
E MKB1
F MKB2
SW1
MAC
PC1
PC2
MIDI
COMPUTER
JK1
CN1
CN8
CN2
CN4
CN9
CN7
IC1
DECODER
SWITCHES & DIODES
IC2
IC3
DECODER
DECODER
SWITCHES & DIODES
KF0 ~ KF3, KS0 ~ KS3
KDB0 ~ KDB4
IC3
RECEIVER
DRIVER
CRXD CTXD
MAC,PC1, PC2,MIDI
IC1
16BIT MICROCOMPUTER
MRXD MTXD
SOFT, SODU, SUST
A1 ~ A20
D0 ~ D15
IC10
SDOMIX
RXD,TXD,SCKIN,SCKOUT
KDB0 ~ KDB4
KF0 ~ KF3, KS0 ~ KS3
D0 ~ D15
D0 ~ D7
A1 ~ A4
D0 ~ D15
TONE GENERATOR LSI
A0 ~ A14
A0 ~ A19
DATA BUS
ADDRESS BUS
DATA BUS
IC6
IC8
IC9
D0 ~ D19
D8 ~ D15
D0 ~ D7
4M BIT PROGRAMMED ROM
256K BIT STATIC RAM
256K BIT STATIC RAM
A1 ~ A18
A1 ~ A15
A1 ~ A15
ADDRESS BUS
IC16
SDOMIX
D0 ~ D15
D0 ~ D7
D0 ~ D15
A1 ~ A4
TONE GENERATOR LSI
A0 ~ A14
A0 ~ A19


C CPL
SWITCHES & LEDS
IC2,3
BUFFER
Q2~6
LED DRIVE
IC1
SEG0~SEG11
CM0~CM5
SW0~SW7
8BIT MICROCOMPUTER
DATA,SCK
VR2
MAIN
VOLUME
CN1
CN2
CN3
CN4
D CPR
SWITCHES & LEDS
LED1
LED DISPLAY
A MAIN
Q6
+5A REGULATOR
+15V
+5A
D14
D12
+5B
D13
-15V
+VCC
+5D
Q7,8
+5D REGULATOR
+3.3V
Q9
+3.3V REGULATOR
CN1
CN2
CN3
IC21
D-A
CONVERTER
IC22
D-A
CONVERTER
IC26A
IC26B
WD0A ~ WD15A
RD0A ~ RD7A
IC11
D0~D7
256K BIT
PSEUDO
STATIC
RAM
A0~ A14
IC12
D0~D15
64M BIT
MASK RAM
A0~ A19
RA0A ~ RA14A
WA0A ~ WA19A
WD0B ~ WD15B
RD0B ~ RD7B
IC17
D0~D7
256K BIT
PSEUDO
STATIC
RAM
A0~ A14
IC18
D0~D15
64M BIT
MASK RAM
A0~ A19
RA0B ~ RA14B
WA0B ~ WA19B
CN6


B FJASP
+15V
IC1
+15V REGULATOR
+VCC
D7,8
CN3
T1
POWER TRANSFORMER
CN2
CN1
SW1
POWER SWITCH
-15V
IC2
-15V REGULATOR
-VCC
D5,6
JK9
AC CORD
+VCC
SP3 (Lch)
6.5cm; 8Ω
CN7
IC3B
IC5,6,9,10A
IC11B
Q11,12,15,16
SP1 (Lch)
14cm; 4Ω
IC3A
IC7,8,9,10B
IC11A
Q13,14,17,18
CN8
SP2 (Rch)
14cm; 4Ω
CN5
MIXING
EQUALIZING
POWER AMPLIFIER
SP4 (Rch)
6.5cm; 8Ω
I HP
CN4
CN1
CN2
POWER INDICATOR
+15V
IC4A Q7,8
JK1
1
HEADPHONE
IC4B Q9,10
JK2
2
HEADPHONE AMPLIFIER
JK7
L
LINE OUT
JK8
R
JK5
L
AUX IN
JK6
R
G PKB
CN1
JK1
PEDAL IN
SOFT
SOSUTENUTO
SUSTAIN
Q20
JK3
OUT
CN6
IC12
PHOTO COUPLER
JK2
IN
MIDI